AMOGS

32nd Annual Conference

of

The Association of Maharashtra Obstetric & Gynaecological Societies

Hosted By

Pune Obstetric and Gynaecological Society

PUNE OB-GYN SOCIETY EST. 1953

ALGORITHMS IN OBS-GYN

POGS Office, 302/303, 3rd floor, Dr. Nitu Mandke IMA House, 992, Shukrawar Peth, Tilak rd, Pune 411002
Contact: +91-20-2449 1000, 7410722757, 9403969415
freepapers@amogs2018.com | amogspune2018@gmail.com | www.pogs.in | www.amogs2018.com

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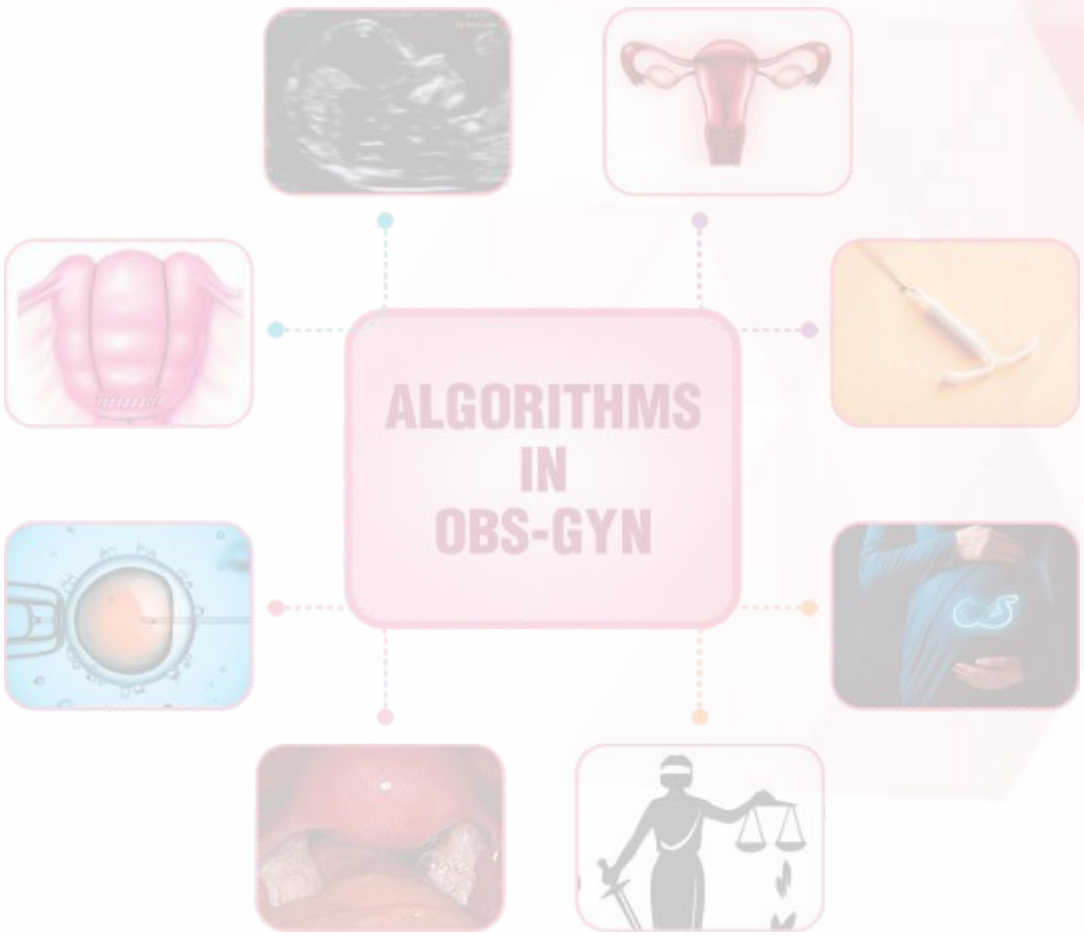

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From the Editor's Desk

Dr. Nilesh Balkawade
Consultant, Reproductive Medicine & Endoscopy, Indira IVF, Pune
Jt. Treasurer POGS (2015-16)
National Co-ordinator, FOGSI Quiz Committee

Dr. Ashwini Kale
IVF Consultant & Chief Embryologist
Ashakiran Hospital, Pune
Jt. Clinical Sec. POGS (2016-17)
Zonal Co-ordinator AMOGS (2016-18)

Dear Colleagues,

It gives us immense pleasure to bring to you this Souvenir "Algorithms in Obs-Gyn" for the 32nd AMOGS Conference to be held in Pune, the Educational & Cultural capital of Maharashtra.

Creativity is thinking up new things. Innovation is doing new things.
– Theodore Levitt

Everyone is born creative. But the innovative skill we need to cultivate is not simply coming up with great ideas but applying them to make the world a better place. When the idea of creating something new for this Souvenir came up, we thought of a handbook which would be useful clinical guide for the practitioners, but it should be easy to refer to, without much text. Hence the idea of **"Algorithms in Obs-Gyn"** for the souvenir. It includes the common topics of concern and decision making dilemma for the Obstetrician & Gynaecologist. Precisely crafted algorithms, tables and point wise notes would definitely make reading interesting. It also includes Interesting social topics of medicolegal importance along with Consensus Statements from all the workshops in the 32nd AMOGS Conference. Doctor patient relationship is at stake in this current scenario, hence we've come up with consents in Common practice along with patient counseling. We sincerely hope that this Souvenir would be a part of your Clinic Room, help you in decision making and solve your doubts by which the memories of this 32nd AMOGS would be cherished forever.

We thank all the AMOGS & POGS office Bearers for bestowing on us the responsibility of this Souvenir. We thank all the Authors who have contributed to this new idea of **"Algorithms in Obs-Gyn".** We take this opportunity to thank the Academic sponsorers for this Souvenir.

Reading is to the mind what exercise is to the body.....
Happy Reading!!

AMOGS President's Message

Prof. Dr. Kanan Yelikar
Dean, GMCH, Aurangabad (MS)
Vice President – FOGSI (2007)
Chairperson clinical research FOGSI (2004- 2008)
Dr. B. C. Roy awardee

Dear Colleagues

It gives me a great pleasure to welcome all of you for the 32nd AMOGS conference hosted by Pune obgyn society (POGS).The conference is spread over a period of 4 days including a pre-congress post graduate CME hosted at B J medical college .The scientific programme has been meticulously planned and the faculties have been appropriately chosen. The BN Purandare oration on day 2 of conf. will be delivered by senior faculty Dr. S.N.Daftary. The Dr.Anjaneylu Oration on day 3 will be delivered by myself (the outgoing president).

I took over as president AMOGS at Shirdi in feb.2016 for a period of two years.The theme of AMOGS during my tenure was IMPACT i. e. Integrated Maternal Health,Postgraduate Teaching, Advances and updates, Community Services and Training for medical officers and ANM Programmes.And we could successfully conduct more than 100 activities.Iam thankful to one and all for their contribution to AMOGS .

I am sure you will enjoy the academic feast and the local hospitality offered by POGS.Thanks POGS for their tiring efforts to make the conference a grand success. !!

President Elect, AMOGS 2018

Dr. Rohini Deshapande
Senior Vice President,
AMOGS 2017

I am extremely pleased that 32nd Annual conference of AMOGS will be hosted by Pune Obstetric and Gynecological Society (POGS) from 9th, 10th,11th February 2018. I extend warm welcome and greetings to all the delegates and faculties attending this conference.

I am proud to say that Maharashtra has largest number of members in the field of Obstetrics and Gynecology and societies. This specialty gives us great opportunity to constantly improve and contribute to health of women and their well being. Annual state Conference gives wonderful platform to know rapid developments, research and innovations in this field of medicine.

In view of this POGS has organized this conference with well structured academic topics covering all sub specialties and involving experts from all over Maharashtra. I am sure delegates will be witness blend of brilliant academics and superb cultural events.

My hearty congratulations to Dr Nishikant Shrotri President POGS, Dr Bharati Dhore Patil Organizing chairperson and entire organizing team of POGS of 32nd Annual conference of AMOGS for all the hard work they have put in to make it unique and memorable.

I wish the conference a grand success.

POGS President

Dr. Nishikant Shrotri

Organizing Chairperson, 32nd Annual Conference of AMOGS

Dear Colleagues,

It is a great honour to write this message in the capacity of President of Pune Obstetric & Gynaecological Society as well as The Organizing Chairperson of AMOGS 2018 conference. I am indeed proud of presenting this Souvenir to all the delegates of 32nd Annual Conference of The Association of Maharashtra Obstetric & Gynaecological Societies hosted by Pune Obstetric & Gynaecological Society.

POGS is committed to Medical and Health education and services. As one more step in this mission, POGS has brought out this publication on **"Algorithms in Obs-Gyn."**

This Souvenir is published with the intention of distributing updated Clinical material to the Obstetricians & Gynaecologists. This book has tried to provide something more than just the theoretical text book knowledge. It will provide you the algorithms of complete management of various clinical issues we face in our day-to-day clinical cases. The algorithm provides options for all the data at hand – may it be positive or negative; and takes us further to the next level of decisions. This book, has exactly tried to provide such pathway to the readers.

The medical Science is expanding by leaps and bounds. Hence the standardization of medical management has become the need of the day. Algorithms always channelize and standardize the system leaving very less scope for the eleventh hour decisions depending only on the gut feeling.

In this era of information technology, I have realized the importance and utility of algorithms in designing any system; hence I appreciated the editors' idea of this book to provide such algorithmic system to our clinical data also. They have indeed worked very hard on the collection of material and the data for this book.

I am confident; all of you will appreciate the outcome of the novel idea in form of this book. I look to this book as an able competent reference book for every Obstetrician and Gynaecologist.

Looking forward to the great success of this AMOGS 2018 Conference,

Organizing Chairpersons, AMOGS 2018

Dr. Nishikant Shrotri

Dr. Sanjeev Khurd

Dr. Bharati Dhorepatil

It gives us great joy to express our pleasure on the occasion of the release of Conference Souvenir.

Pune Obstetrics & Gynecological Society (POGS) has had the proud privilege of hosting the 1st AMOGS Annual Conference way back in 1987, and then the 16th AMOGS Conference in 2002, at B. J. Medical College.

The 32nd AMOGS Annual Conference in Pune is indeed a landmark event for the POGS and the Conference Souvenir will serve to house all the wonderful memories associated with it.

We congratulate Dr. Nilesh Balkawade and Dr. Ashwini Kale for their commendable effort in bring up this beautiful Souvenir for all the Conference delegates to treasure !

With Best Wishes !!!

Organizing Secretaries, AMOGS 2018

Dr. Meenu Agarwal

Dr. Kiran Kurtkoti

Dr. Manish Machave

Dr. Ashish Kale

Dear Faculties and delegates,

Greetings from team AMOGS 2018, and warm and vibrant welcome to the city of inspired education, rich heritage and deep rooted culture, Pune.

ॐ असतो मा सद्गमय । तमसो मा ज्योतिर्गमय । मृत्योर्मा अमृतं गमय ।

Lead us from ignorance to truth, Lead us from darkness to light, Lead us from death to deathlessness.

AMOGS meet was long due in Pune and was the need of the hour. It is only by brainstorming sessions, discussions and debates in the light of available literature that professional growth can take place. It is often seen that once these deliberations are over one has to rely deeply on memory alone to recollect all that was of importance. More so we fall behind on the world map of scientific studies because there is lack of standardization and uniformity in what we do. Hence this souvenier.

Although individual tips and tricks are beneficial. But for the sake of simplicity and constraint of avoiding jargon we have designed this in a unique way of propogating and promoting CONSENSUS STATEMENTS , which have evolved through extensive discussions and deliberations participated by renouned and experienced faculty. This book is intended to assist practitioners and clinicians who are involved in busy day to day practice and want the latest and apt information with ease and accuracy. Much of the information has come from different guidelines amalgamated and extrapolated to our peculiar situations and the approach to writing this has been very much to record most practical points, rather than trying to compile yet another academic text. As such some professionals and experts in their own specific subject areas may take issue with a perceived lack of rigour in our treatment of the topics. This may or may not be justified, but we have attempted to treat each subject in a way that is accessible to, and understandable by our own members and we would welcome all comments on the text, particularly if you feel that this could be better achieved. We welcome all suggestions, comments and criticisms.

We thank all contributors, Dr. Nilesh Balkawade and Dr. Ashwini Kale for their untiring efforts to make this souvenier see the light of the day.

Extending AMOGS 2018 souvenier, at Pune, to be a benchmark, a milestone, to help you sail in the undulant waters of everyday practice with safety and poise.

Happy reading and hope this benefits one and all.

Namaskar.

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ALGORITHMS

01

FIRST TRIMESTER SCREENING

Author :

Dr. Pooja Lodha

Director, Kangaroo Cradle Fetal Medicine Clinic, Deccan, Pune

Lead Consultant, Department of Fetal Medicine & Fetal Therapy, Ruby Hall Clinic, Pune

Consultant, Department of Fetal Medicine & Fetal Therapy, Bharati Vidyapeeth Hospital & Medical College, Pune

Author :

Dr. Sushil Chawla

Associate Professor

Armed Forces Medical College, Pune.

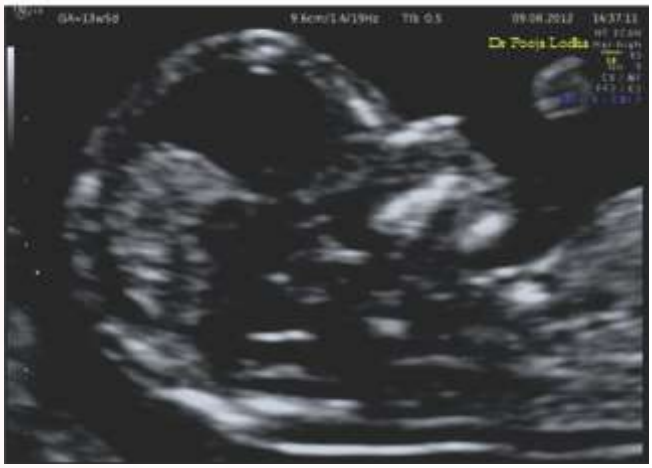
Tips & Tricks

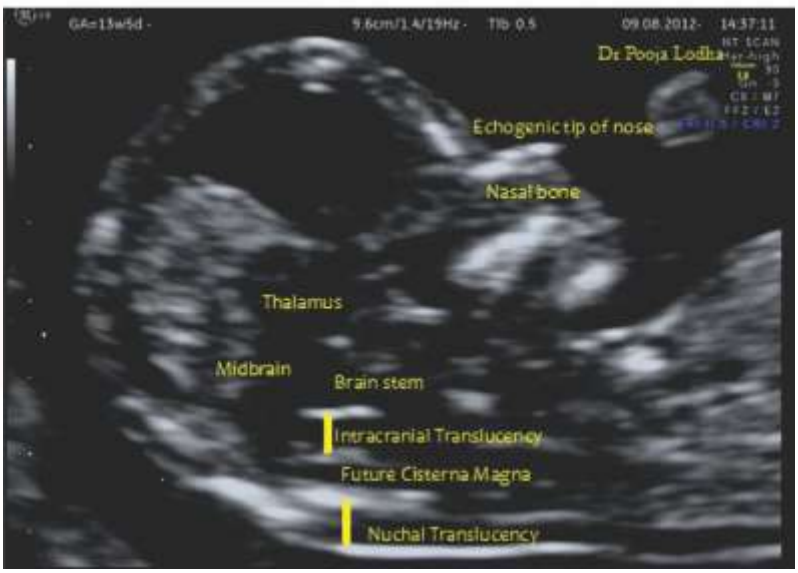
- Correct gestation
- Play with
  - ✓ Bladder
  - ✓ Maternal position on bed
  - ✓ Maternal position of bed
  - ✓ Mom's tummy
  - ✓ Opportunity
  - ✓ Probe

Nuchal Translucency

How to measure Nuchal Translucency

Criteria	Details
Image magnification	Fetal head & thorax - whole screen
When to measure	45-48 mm
Fetal Position	Midline sagittal Section
Fetal skin and amnion	Differentiate skin and amnion
Fetal attitude	Neutral - nor Flexed/extented
Where to measure NT	Widest part, above and below the cord
How to measure NT	Caliper not visible Gain Down





Combined 1st Trimester Screening

Maternal age + 12 week scan (NT, Nasal bone) + Double Marker

High risk
> 1: 100

Low Risk
< 1: 1000

CHORIONIC VILLOUS SAMPLING
(Diagnostic testing)

Intermediate risk
1:100 – 1:1000

Routine care

16 weeks: Quadruple test + Early genetic sonogram

10 weeks onwards: Non-invasive prenatal SCREENING (NIPS)

- Avoid when USG shows abnormal markers

- Preferred when risks are not improving due to double marker trends

Ventriculomegaly

Renal pyelectesis

Hyper-echogenic bowel

Short femur

Short Humerus

Aberrant right sub-clavian artery

Intra-cardiac echogenic focus

Single umbilical artery

Choroid plexus cysts

Fetal structural defects

High risk NIPS

AMNIOCENTESIS
(Diagnostic testing)

HIGH NT at 12 weeks

LOW RISK

HIGH RISK

(Refer to Algorithm above)

Karyotype

Normal

Abnormal

TERMINATE

Fetal Echocardiography

Detailed Structural CheckK

Infection screening

Heart defects

Diaphragmatic hernia

Skeletal dysplasia

Abdominal wall defects

Noonan's syndrome

Di George Syndrome

Fun Corner

02

WHEN HER BLOOD PRESSURE SHOOTS... (Preeclampsia)

Author :
Dr. Nishikant Shrotri
President, POGS
Organising Chairperson, AMOGS 2018

Author :
Dr. Aparna Shrotri
Ex-Prof., B.J. Medical College, Pune
President, POGS 2015-16

Hypertensive disorders of pregnancy form the second leading cause of maternal mortality in India; responsible for about 14 % of maternal deaths.[1] Early recognition and prompt care can save lives.

Box 1: Diagnostic Criteria[2]

Diagnosis	Criteria
Gestational Hypertension	≥ 140/90 mmHg at least on 2 occasions 4 hours apart after 20 weeks of gestation
Pre-eclampsia	Hypertension after 20 weeks of gestation and proteinuria • 300 mg/24 hour urine collection or • Protein/Creatinine ratio 0.3 or Dipstick 1 + (If quantitative methods unavailable)
Preeclampsia with severe features	≥ 160/110 mm Hg Severe headache, blurring of vision, epigastric pain, oliguria, pulmonary edema, HELLP syndrome*, impaired renal function (S. Creatinine > 1.1 mg/dl)
Eclampsia	Preeclampsia with Convulsions
Chronic hypertension	≥140/90 mm Hg before 20 weeks of gestation

***HELLP Syndrome:** Platelet count of ≤ 100,000/µL ; AST or ALT levels of ≥ 70 IU/L; LDH ≥ 600 IU/L (with haemolysis as evidenced on abnormal peripheral smear, raised serum bilirubin level). Malaise, nausea, vomiting, epigastric and right upper quadrant pain, headache, visual changes jaundice, nonspecific viral syndrome types of symptoms.

Note: Proteinuria has not been included in severe features as it has not shown any correlation with pregnancy outcome. Fetal growth restriction is also not included.[2]

Controlling hypertension

Antihypertensive medicines are essential for severe hypertension. Can be started if BP > 150/100 mmHg. [3] The accepted options are oral Labetalol, oral Nifedipine, oral Methyl dopa, IV Labetalol and IV Hydralazine. Choice and route of administration can be based on prescribing clinician's experience, contraindications for use, cost and availability. [4]

Hypertensive Emergency [5]

Acute onset severe systolic or diastolic hypertension persistent for 15 minutes or more occurring during prenatal, intrapartum or postpartum periods should be considered as hypertensive emergency. Many maternal deaths are resulting due to cerebral hemorrhage and cerebral infarction. The degree of systolic hypertension appears to be the most important predictor of cerebral injury and infarction. Hence systolic blood pressure of 160 or more should be considered as severe hypertension requiring immediate therapy.

Treatment with first line agents should be within 30-60 minutes of detection of severe hypertension. IV Labetalol and IV Hydralazine are considered as first line medications, immediate release oral Nifedipine may be considered as first line therapy. The use of these medicines does not require cardiac monitoring. The sample protocol is given in table 15. Differences in the recommended intervals reflect the differences in their pharmacokinetics. Patients may respond to one drug and not other and switching to another option may be needed.

When IV access is not available, and immediate release oral nifedipine is unavailable, oral labetalol can be given 200 mg initially which can be repeated after 30 minutes if no improvement.

The goal is to achieve a threshold of 140-150/90-100 mmHg to prevent prolonged exposure to severe systolic hypertension with subsequent loss of cerebrovascular autoregulation. After initial stabilization blood pressure should be monitored closely and maintenance therapy should be instituted along with regular maternal & fetal surveillance.

If target BP level achieved, monitor BP every 10 min for 1 hour, every 15 min for 1 hour every 30 min for 1 hour, every hour for 4 hours; thereafter 4 hourly[5].

Table 1: Sample Protocol for Controlling Acute Severe Hypertension

Immediate Release Oral Nifedipine	IV Labetalol	IV Hydralazine
Initial 10 mg	Initial 20 mg over 2 minutes	Initial 5-10 mg over 2 minutes
Record BP after 20 minutes. BP still high Repeat 20 mg	Record BP after 10 minutes. BP still high Repeat 40 mg IV	Record BP after 20 minutes. BP still high Repeat 10 mg over 2 min IV
Record BP after 20 minutes. BP still high Repeat 20 mg	Record BP after 10 minutes. BP still high Repeat 80 mg IV	Record BP after 20 minutes. BP still high IV Labetalol Repeat 20 mg over 2 minutes

Immediate Release Oral Nifedipine	IV Labetalol	IV Hydralazine
Record BP after 20 minutes. BP still high IV Labetalol 40 mg over 2 minutes	After 10 minutes if BP still high IV Hydralazine 10 mg over 2 minutes	After 10 minutes if BP still high IV Labetalol 40 mg over 2 minutes

Adverse effects and caution: IV labetalol can be associated with neonatal bradycardia. It is contraindicated in asthma, heart disease, congestive cardiac failure. IV hydralazine may increase the risk of maternal hypotension. Nifedipine can be associated with increased maternal heart rate and hypotension and should not be given sublingually.

When IV access is not available, and immediate release oral nifedipine is unavailable, oral labetalol can be given 200 mg initially. Repeated after 30 minutes if no improvement.

Once the blood pressure is below the threshold level, continue oral nifedipine or labatalol as required to maintain BP 140-150 systolic and 90-100 mm Hg diastolic by giving

Tab nifedipine 10 mg three times a day increased as required (maximum 80 mg /day) or Tab labetalol 100 mg twice a day, increased as required not to exceed 2.4 gm/day

Preventing /Controlling fits: Magnesium sulfate (MgSO4) is the drug of choice

Indications :

1. Preeclampsia with any of the severe features
2. Eclampsia

Prichard Regime

Loading dose (Total 14 grams)	Criteria
4 g of 20% MgSO4 (8mL MgSO4 50% + 12 ml NS/ distilled water in 20 ml syringe. Give slow IV in 5-10 minutes	5 g (10mL) 50% MgSO4 deep IM in alternate buttock every 4 hours
5 g (10mL of 50 %) MgSO4 deep IM in each buttock	To be continued for 24 hours after last convulsion or delivery- whichever occurs later
If fits recur after 15 minutes of loading dose : 2 gm IV (4 ml MgSO4 + 6 ml NS/DW)	Watch for toxicity signs before every maintenance dose. With hold the next dose in case of presence of any of the following: • Urine output: < 25-30 ml/hour • Deep Tendon Reflex (knee jerk): Absent • Respiratory rate: < 16/minute
Give antidote Inj. Calcium gluconate (10 ml 10 %) slow IV for respiratory toxicity	

IV regime: 4 gm 20% loading dose followed by 2 gm /hour infusion

Assessment:

- Urine- Albumin, sugar, Urine output
- Lab tests : Hemogram including Platelets, bleeding time, clotting time, Blood urea, serum creatinine, serum uric acid, serum bilirubin, SGOT, SGPT. serum LDH
- Fundoscopy
- Monitoring fetal growth by USG. Fetal well being from 28 weeks : Daily fetal movement count, non stress test, amniotic fluid index, umbilical artery doppler velocimetry

Monitoring and Delivery :

Gestational hypertension : Weekly clinic visit to check blood pressure, symptom screening and proteinuria test. Laboratory tests weekly. Fetal growth 3 weekly. Delivery at 37 weeks

Preeclampsia : Hospitalization for initial evaluation, laboratory tests twice a week. Delivery at 37 weeks. Earlier delivery if signs of fetal compromise or worsening maternal clinical or biochemical parameters

Preeclampsia with severe features : Hospitalize until delivery and stabilization. Monitor clinical parameters every 4 hours. Laboratory tests thrice a week.

Diagnosed before 24 weeks , termination of pregnancy is recommended

Between 24-34 weeks expectant management can be considered if fetal and maternal condition permits. Administration of antenatal corticosteroids recommended.

Beyond 34 weeks the decision of terminating pregnancy any time depending on clinical circumstances.

Time of delivery, mode depending on cervical status, gestational period and other factors

Strict bed rest is not necessary. Normal diet recommended. Salt restriction is not necessary.[6]

References

1. Dakshata: Empowering providers for improved MNH care during institutional deliveries April 2015. GOI
2. Hypertension in Pregnancy: American College of Obstetricians and Gynecologists, 2013
3. Hypertension in pregnancy: NICE Pathway last updated: 08 June 2017
4. Drugs for treatment of very high blood pressure during pregnancy: Cochrane sys review , 31 July 2013
5. Emergent therapy for Acute onset severe hypertension during pregnancy and postpartum period : American College of Obstetricians and Gynecologists, Committee opinion, No 692, April 2017
6. Managing complications in pregnancy and childbirth: A guide for midwives and doctors Second edition, April 2017

03

WHEN SUGAR TURNS BITTER...
(Hyperglycemia In Pregnancy)

Author :

Dr. Vaishali Korde-Nayak

Prof. & HOU MIMER Medical College
Fellow, Maternal & Fetal Medicine,
NUH, Singapore

Author :

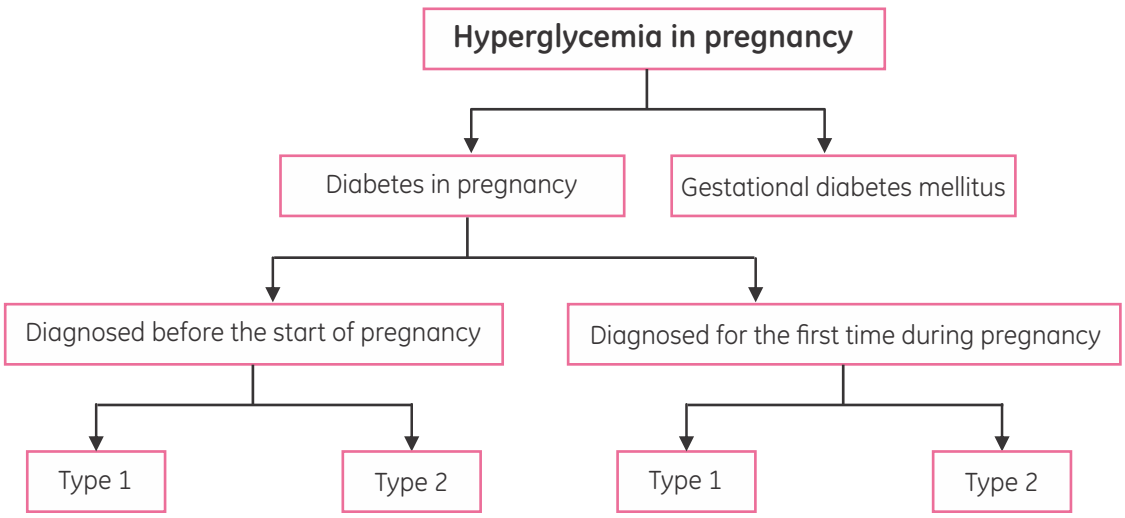
Dr. Sanjay Gupte

MD, DGO, FICOG, LLB, FRCOG.
FIGO Etics committee Co-Chair
President FOGSI 2010
President DIPSI 2013
Member Central Supervisory Board of PCPNDT Act
Member Ethics Committee, Medical Council India

Prevention

- Identify High risk group - e.g. obese, adolescents with polycystic ovary syndrome(PCOS)
- Preconceptional care: especially for high risk group (obese/PCOS/family history ofdiabetes/GDM in previous pregnancy/comorbidities
- Women planning to conceive: Give folic acid and vitamin B12 supplements

Hyperglycemia in pregnancy



Hyperglycemia in pregnancy

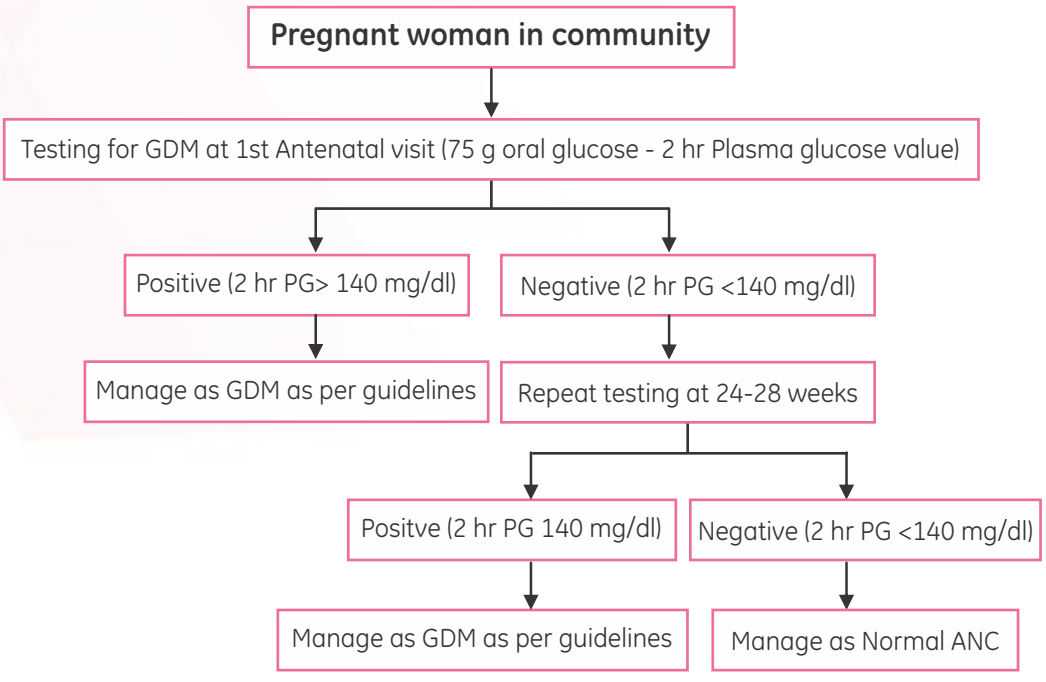
Maternal Risk	
Polyhydramnios	Caesarean section
Pre-eclampsia	Uterine atony
Prolonged labour	Postpartum haemorrhage
Obstructed labour	Infection

Diabetes in Pregnancy Study Group India (DIPSI)

In the antenatal clinic, a pregnant woman after undergoing preliminary clinical examination, has to be given a 75g oral glucose load, without regard to the time of the last meal. A venous blood sample is collected at 2 hours for estimating plasma glucose.

Advantage: The pregnant women need not be fasting. Causes least disturbance in a pregnant woman's routine activities. Serves as both screening and diagnostic procedure.

With 75 gm oral glucose tolerance test (WHO criteria)		
Plasma glucose	**In pregnancy**	**Outside pregnancy**
2 hr > 200 mg/dl	Diabetes	Diabetes
2 hr > 140 mg/dl &< 199 mg/dl	Gestational diabetes	Impaired glucose tolerance
2 hr > 120 mg/dl &< 139 mg/dl	Gestational glucose intolerance	-
2 hr <120 mg/dl	Normal	Normal



Antenatal care Monitor as high risk pregnancy

First Trimester	Check blood pressure, HbA1C, monitor blood sugar level (fasting/postprandial)
Second Trimester	Monitor blood pressure, blood sugar level (fasting/postprandial)
Third trimester	Monitor blood pressure, look for polyhydramnios

Medical management

Maternal Risk	
Plasma Glucose 140-199mg/dl	Medical nutrition therapy
Plasma Glucose >199mg/dl	Medical nutrition therapy + Insulin
After 1 week Fasting Plasma Glucose target 2-hr Post-Prandial Glucose target	 90 mg/dl 120 mg/dl

Fetal risks

Fetal Risk	
Spontaneous abortion	Congenital malformation
Intra-uterine death	Shoulder dystocia
Stillbirth	Birth injuries
Neonatal hypoglycaemia	Infant respiratory distress Sundrome

Foetal monitoring

First Trimester	Clinical exam, dating scan, NT scan + biochemical screening, Uterine arteries - prediction of preeclampsia Umbilical arteries, MCA - for the detection and monitoring of IUGR
Second Trimester	Clinical exam, anomaly scan 19 wks, triple/quadruple marker if not screened earlier, AFI, foetal echo 22 wks
Third trimester	Clinical exam (fundal height, abdominal girth), growth scans 28,32, 36 weeks, colour doppler as indicated, AFI, NST 32 wks onwardif on insulin
Assess EBW at 38 weeks	Role of steroids: betamethasone to enhance lung maturity

Glycemic control

Medical nutrition therapy: life style management, diet , exercise

Oral antidiabetics: metformin, glyburide Insulin

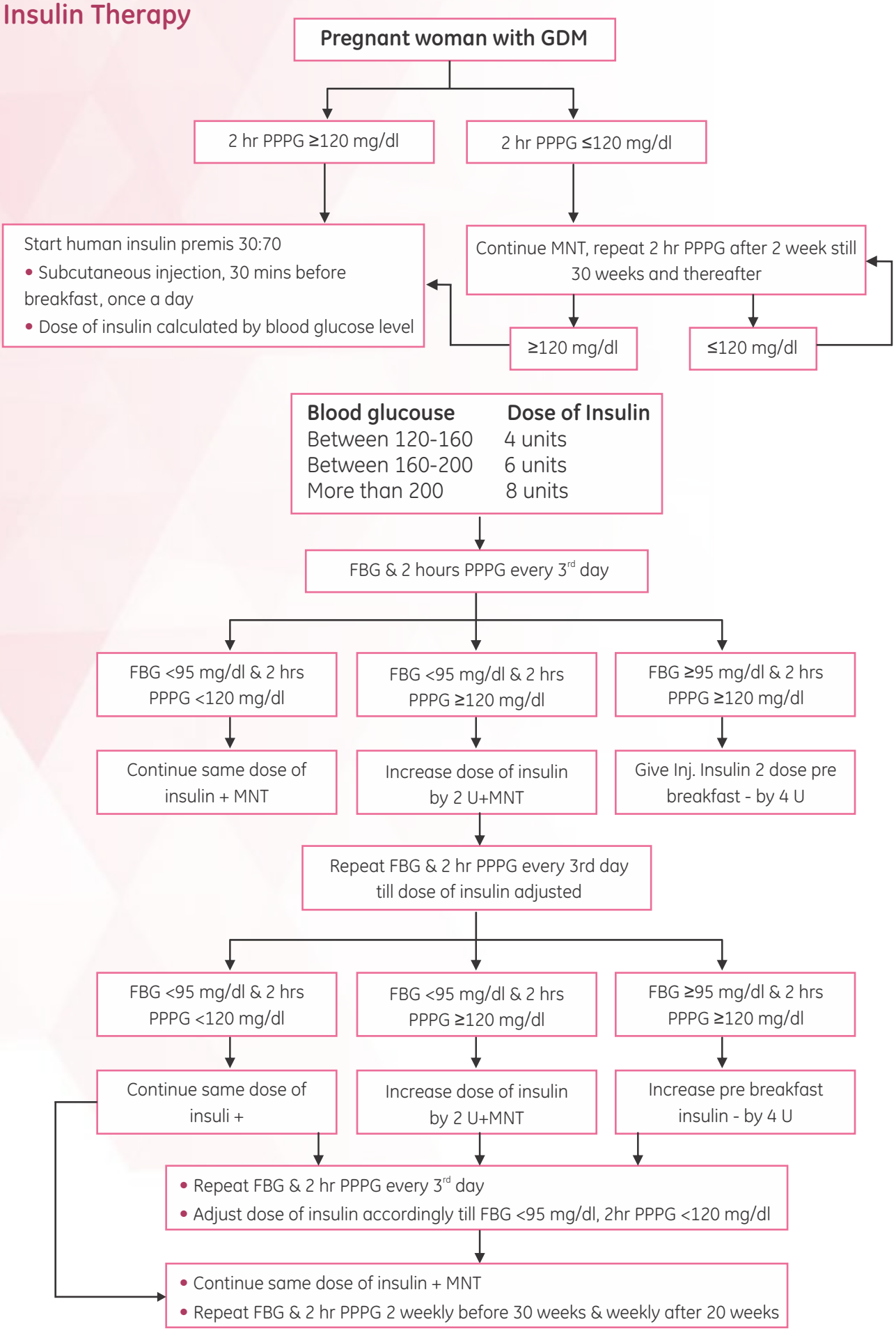
Table 1. Pragmatic use of metformin in mild GDM , based on biopsychosocial health model	
Domain	**Clinical situations**
Contraindications General	All contraindications to metformin use in non-pregnant individuals

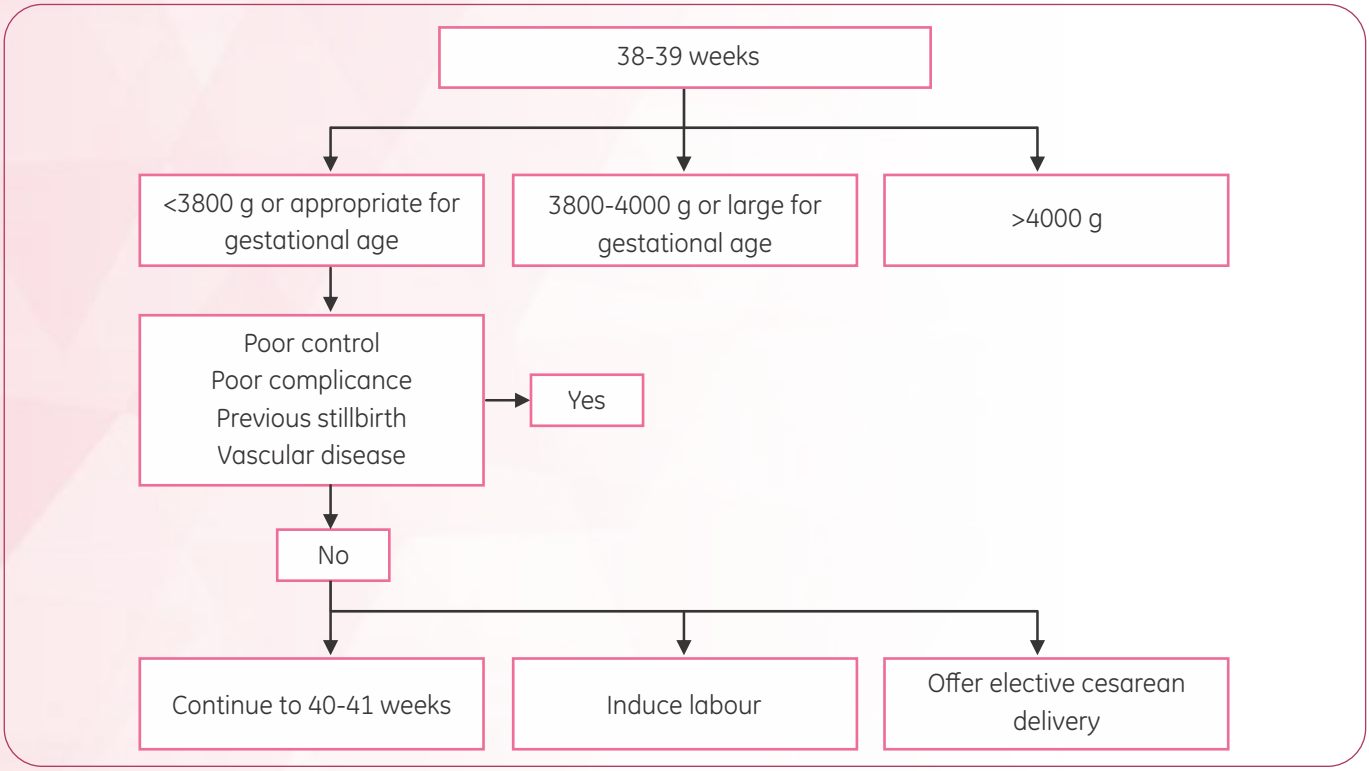
Pregnancy specific	Ketonuria Any evidence of maternal distress Any evidence of fetal distress
Indications Biological	As monotherapy GDM not responding to medical nutrition therapy GDM detected during late third trimester Poor compliance with the treatment plan when the treatment plan includes insulin Lack of skills for self-management with insulin therapy and monitoring As combination therapy, with insulin Uncontrolled hyperglycemia, not responding to optimized insulin regimes Unwanted weight gain with insulin therapy
Psychological	If the suggestion of insulin causes extreme psychological stress When suggestion of insulin causes patient to reduce nutritional intake in order to maintain glycemia
Social	If the suggestion of insulin causes extreme family/social stress Financial burden In health-care settings where insulin is not available or accessible In health-care settings where regular glycemic monitoring is not feasible
Precautions	Regular fetal surveillance Regular maternal surveillance Obstetric monitoring Medical monitoring
An abnormal result on an oral glucose-tolerance test but a fasting glucose level below 95 mg/dl (Ref.: Landon et al.). GDM: Gestational diabetes mellitus	

Glucose lowering in pregnancy

	Acarbose	Metformin	Glyburide
Degree of hyperglycemia	+	+	+ +
Predominantly fasting hyperglycemia		+	
Predominantly post-prandial hyperglycemia	+		+
Risk of hypoglycemia	Safe	Safe	High Risk
Gastrointestinal tolerability	Possible	Possible	-
Effect on insulin resistance	-	+	-
Effect on weight	Weight neutral	Weight natural	Weight gain
Frequency of administration	With each meal	Once (sustained release) to thrice daily (immediate release)	Once or twice daily

Insulin Therapy





Labour management – First stage

Hyperglycemia in pregnacy controlled on diet, spontaneous labour	Admission CTG partograph blood sugar by glucometer 2 hourly **Target level:** 80–120mg%, continuous fetal monitoring
Spontaneous labour in patients of hyperglycemia in pregnacy on Insulin/ oral antidiabetics	Admission CTG partograph blood sugar by glucometer 2 hourly **Target level:** 80–120mg%, continuous fetal monitoring, IV fluid as per blood sugar levels

Labour management – second and third stage

Second stage	Third stage
• Controlled ARM • Anticipate - shoulder dystocia, Assisted vaginal delivery • Neonatologist/ Trained person to resuscitate	• Active management of third stage • W/F- traumatic / atonic PPH

Blood sugar management

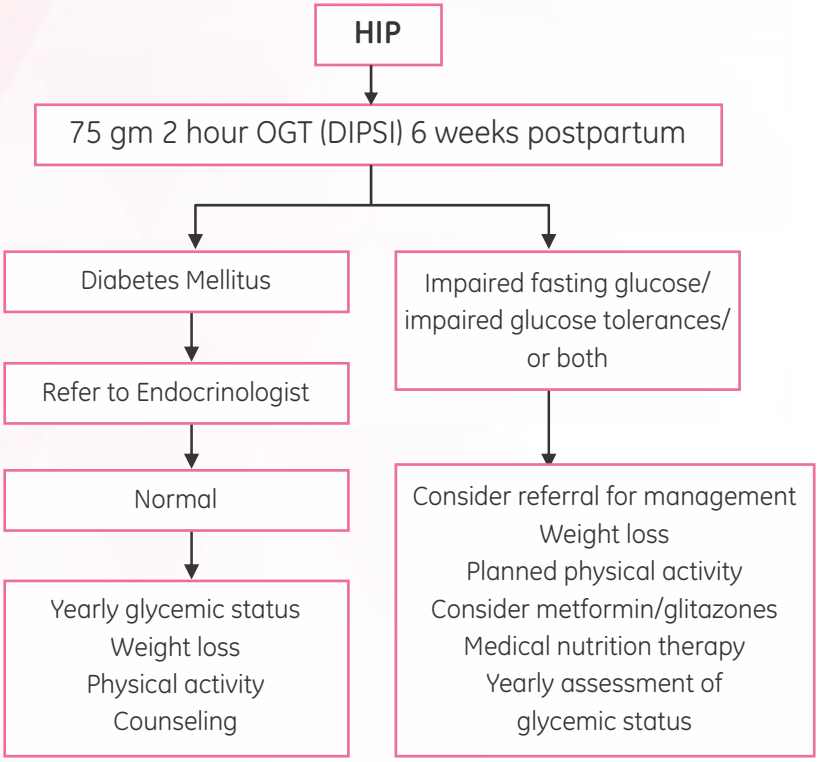
Blood sugar monitoring 2 hrly: Target 80-120 mg%

Blood glucose level	Amount of insulin added in 500 ml normal saline	Rate of normal saline infusion
90-120 mg/dl	0	100 ml/hr (16 drops/min)
120-140 mg/dl	4 U	100 ml/hr (16 drops/min)
140-180 mg/dl	6 U	100 ml/hr (16 drops/min)
>180 mg/dl	8 U	100 ml/hr (16 drops/min)

New born and postpartum care

New born care	Postpartum care
• Be careful - traumatic delivery • Hypoglycaemia • RDS • Hyperbilirubinaemia	• Breast feeding at earliest • W/F infection • Close monitoring of BSL if on insulin • BSL F / PP on D3 if on MNT / OAD At 6 weeks - OGCT (DIPSI) • Counsel for lifestyle, diet, exercise • Fastinv plasma:>126 mg/dl • 75 g OGTT 2 hour plasma glucose Normal: <140 mg/dl IGT: 140-199 mg/dl Diabetes: >200 mg/dl

Hyperglycemia in pregnancy



Postpartum contraception

Barrier	IUD - Cu / LNG
POP/progesterone implant	With due risk COC
Combined oral contraceptive/injectable/ transdermal/intravaginal	Contraindicated with macrovascular disease

04

INTRAPARTUM FETAL MONITORING: WHAT IS THE BABY TELLING YOU ?

Author :

Dr. Nilesh Balkawade

Consultant,
Reproductive Medicine & Endoscopy
Indira IVF, Pune
Jt. Treasurer POGS (2015-16)
National Co-ordinator,
FOGSI Quiz Committee

Author :

Dr. Ashwini Kale

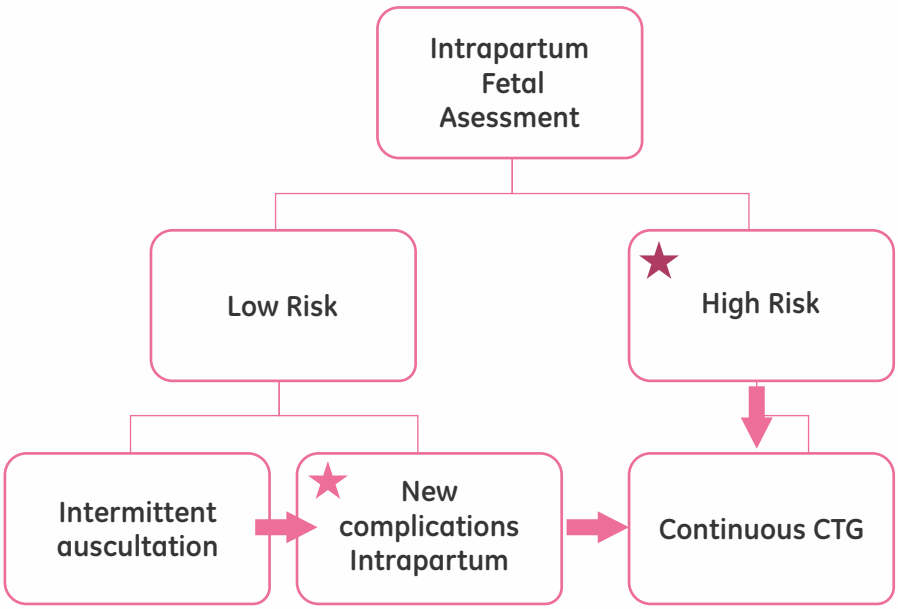
IVF Consultant & Embryologist
Ashakiran Hospital, Pune
Jt. Clinical Sec. POGS (2016-17)
Zonal Co-ordintor AMOGS (2016-18)

Intrapartum Fetal Monitoring

Women must be made aware in the antenatal period of the options available for fetal monitoring during labour; this is ideally discussed at the 36 week community midwifery appointment.

Do not offer cardiotocography (CTG) to women at low risk of complications in established labour (NICE 2017).

Monitoring and Assessment in Early Labour



Shift to CTG

Pulse over 120 beats/minute
Temperature of 38°C or above
Suspected chorioamnionitis or sepsis
Meconium stained liqour
Fresh vaginal bleeding
Severe hypertension->160/110mmHg
Delayed 1st or 2nd stage of labour
Epidural analgesia

High Risk-Continuous CTG

Maternal Conditions
Anitphospholipid Antibody Syndrome
Hyperthyroidism (poorly controlled)
Hemoglobinopathies
Complex cardiac disease
Symptomatic Lupus Erythematosus
Chronic Renal Disease
Hypertensive disorders
Uncontrolled Diabetes

Obstetric Conditions
Oligohydramnios
Polyhydramnios
Intrauterine Growth Restriction
Preterm (<35 weeks) or
Postterm Pregnancy (over 42 weeks)
Isoimmunization (moderate to severe)
Multiple gestation
Pre Eclampsia
Oxytocin induction or augmentation
Chorioamnionitis
VBAC

Baseline Fetal Heart Rate

Reassuring
110 to 160 beats/minute
Non-reassuring
100 to 109 beats/minute
161 to 180 beats/minute
Abnormal
below 100 beats/minute
above 180 beats/minute

Baseline Variability

Reassuring:
5 to 25 beats/min
Non-reassuring:
less than 5 beats/minute for 30 to 50 min
more than 25 beats/minute for 15 to 25 min
Abnormal:
less than 5 beats/min
more than 25 beats/min
sinusoidal pattern

Acceleration & Deceleration

Presence of accelerations is a sign of healthy baby

Absence of accelerations doesn't indicate acidosis

Describe decelerations as 'early', 'variable' or 'late'

Use the following Categorisations for Decelerations in Fetal Heart Rate:

- Variable decelerations with no concerning characteristics for 90 minutes or more
- Variable decelerations with any concerning characteristics in up to 50% of contractions for 30 minutes or more
- Variable decelerations with any concerning characteristics in over 50% of contractions for less than 30 minutes
- Late decelerations in over 50% of contractions for less than 30 minutes, with no maternal or fetal clinical risk factors such as vaginal bleeding or significant meconium
- Variable decelerations with any concerning characteristics in over 50% of contractions for 30 minutes (or less if there are any maternal or fetal clinical risk factors)
- Late decelerations for 30 minutes (or less if there are any maternal or fetal clinical risk factors)
- Acute bradycardia, or a single prolonged deceleration lasting 3 minutes or more.

Storage of CTGs

- All CTGs should be stored in brown, sealed envelopes and attached securely to the obstetric notes.
- CTG traces are archived for 25 years and stored electronically via the Huntleigh system.
- In cases where there is concern that the baby may experience developmental delay, photocopy CTG traces and store them indefinitely in case of possible adverse outcomes.

Normal CTG Trace

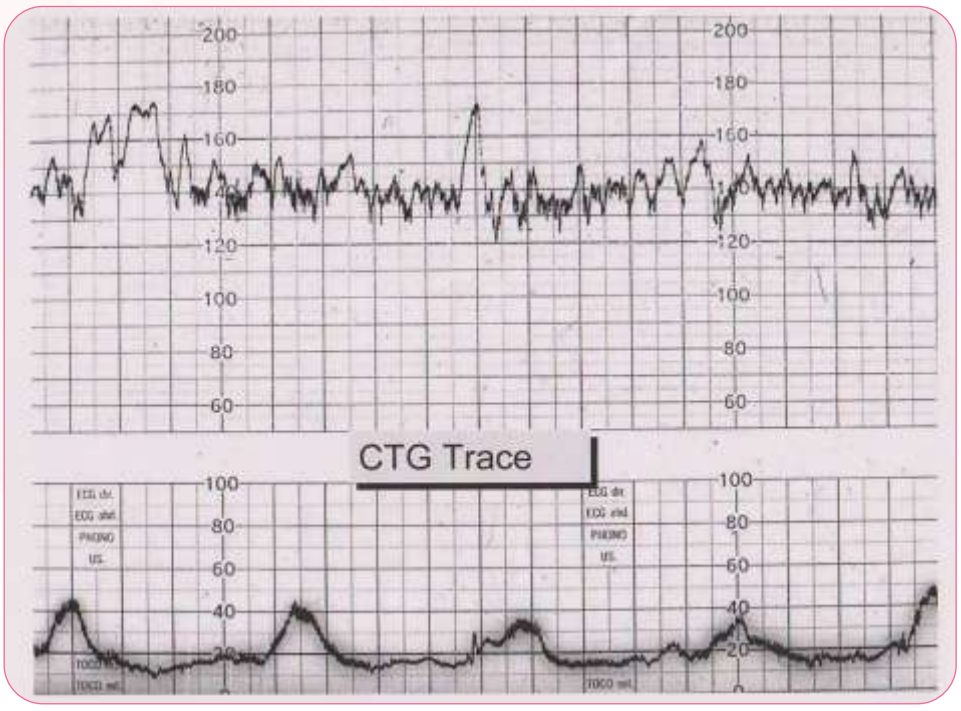


Table 1. NICE guidelines (2017) for CTG interpretation and classification

Documentation Proforma for Intrapartum CTG Interpretation (based on NICE 2017)					
1) Review the Clinical Picture – **Maternal Risks:** **Gestation:**					
2) CTG features	**Reassuring**	**Non-reassuring**		**Abnormal**	
Baseline FHR (bpm)	110-160 bpm	100-109 bpm or 161-180 bpm		Less than 100 bpm or more than 180 bpm	
Variability (bpm)	5 -25 bpm	Less than 5 bpm for 30-50 mins More than 25 bpm for 15-25 mins		Less than 5 bpm for more than 50 min, or More than 25 bpm for more than 25 mins, or sinusoidal pattern	
Accelerations	If present are generally a sign that the baby is healthy Absence of accelerations in otherwise normal CTG does not indicate fetal acidosis				
Decelerations "Concerning" features of a variable deceleration include: • Last more than 60 seconds • Reduced baseline variability within • Failure to return to baseline • Biphasic (W) shape • No shouldering Early	**None** Early Variable decelerations with no concerning features for less than 90 mins	Variable decelerations with no concerning features for more than 90 mins	Variable Decelerations with any concerning features in up to 50% of contractions for 30 mins or more, or in over 50% contractions for less than 30 mins	Late decelerations in over 50% of contractions for less than 30 mins	Variable decelerations with any concerning feature in over 50% contractions for more than 30 mins Late decelerations for 30 mins (less if risk factors present) Acute bradycardia, or single prolonged deceleration lasting 3 mins or more
3) Impression and plan					
Opinion	**Normal CTG** 4 features reassuring	**Suspicious CTG** 1 non-reassuring and 2 reassuring features		**Pathological CTG** 1 abnormal or 2 non-reassuring features	
Management Plan	Continue CTG and normal care	Correct hypotension/hyperstimulation Full set of maternal observations Inform an obstetrician/senior MW Review whole clinical picture and CTG findings and document a plan		Obstetric or senior MW review Exclude acute events Correct hypotension/ hyperstimulation Conservative measures Scalp stimulation/FBS Consider delivery	
Date :	**Time :**	**Signature/Name**		**Signature/Name**	

05

PREGNANCY WITH PREVIOUS SCAR ON THE UTERUS

Author :

Dr. Parag Biniwale

Consultant Ob-Gyn,
Pune
Secretary, ICOG

Author :

Dr. Vaishali Biniwale

Consultant Ob-Gyn,
Pune

Antenatal care

- Detailed history taking : type of scar, CS / Myomectomy / hysterotomy / rupture uterus
- R/o Uterine malformation
- Indication of CS - recurrent /non recurrent
- Post operative details - wound infection / endometritis
- Scrutiny of records
- Early registration
- Dating scan to ascertain exact gestational age / due date
- Routine antenatal care
- Aim at keeping Hb level > 11 gm%
- Early detection of other risk factors e.g. HT, DM, FGR etc

Counselling

- Regarding diet / exercise Birth Plan, mode of delivery
- If previous CS : ERCS / TOLAC

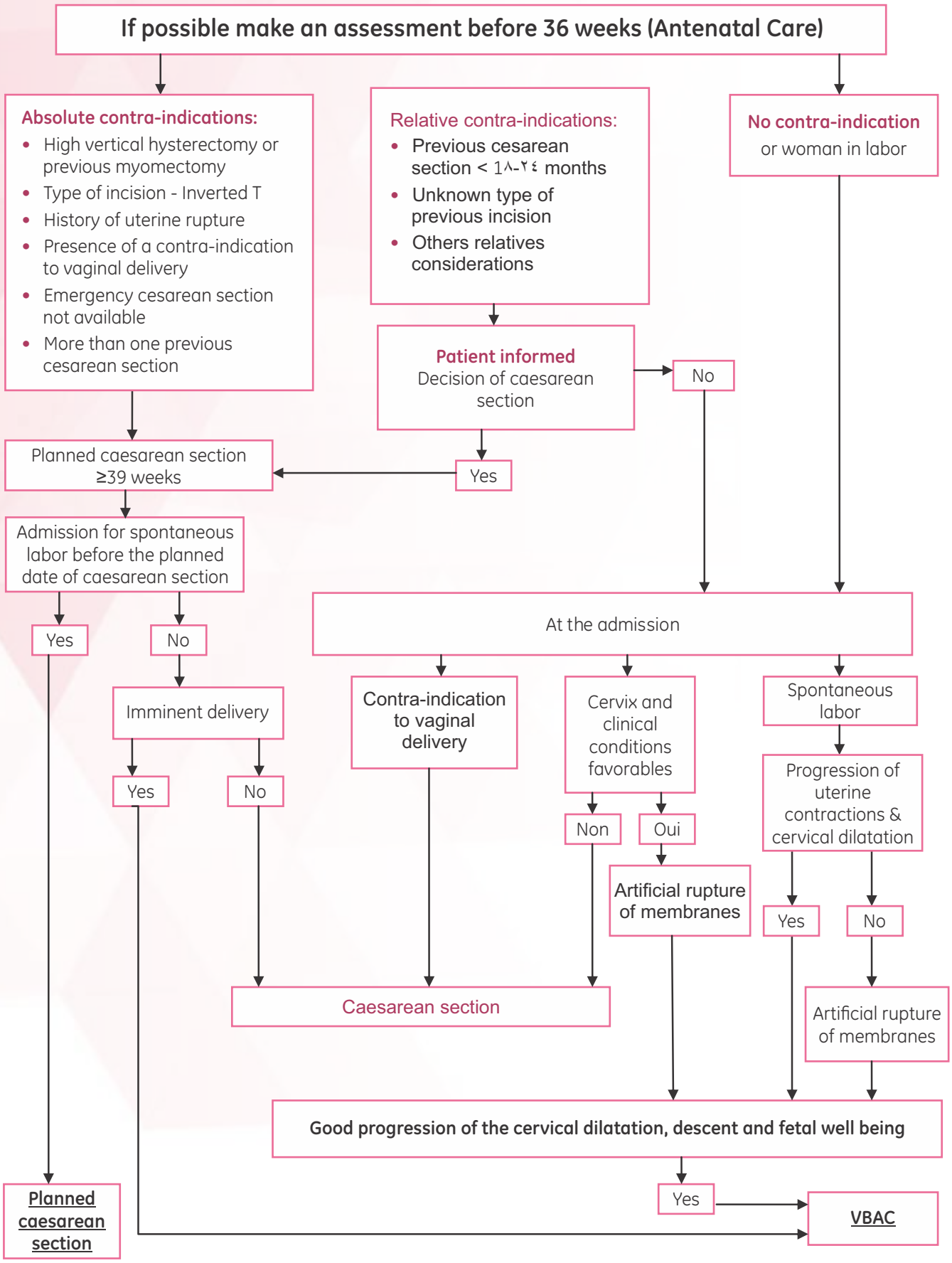
Labour / Planned CS

- proper informed consent
- Keep adequate blood/ blood products
- Expert assistance while performing surgery
- Anticipate: adhesions, possible injury to other organs
- Rope in other specialist in case of complications

Contraceptive Counselling

- PPIUD/ TL / others

Algorithm : Vaginal birth after caesarean (VBAC)



06

DIAGNOSIS AND MANAGEMENT OF PLACENTA ACCRETA

Author :
Dr. J. P. Rath
Consultant,
High Risk Obstetrics,
Ruby Hall Clinic, Pune

Author :
Dr. Shrinivas Gadappa
Prof. & HOD,
Dept. of Obstetrics & Gynecology,
GMCH, Aurangabad

It is one of the three types of **morbid adhesion of placenta**, in its development the fibrinoid layer is attenuated and the syntiotrophoblast migrates beyond the basal layer of the decidua. This is the **commonest form** and usually an **anterior placentation**. Increasing rate of Cesarean delivery is making this commoner than thought and incidence rising exponentially with the number of sections in a given patient. It is one of the leading causes of **grave morbidity and mortality.**

Risk Factors (Clinical Suspicion)

1. Previous Increasing number of Cesarean section
2. Previous Uterine surgery: Myomectomy, uterine reconstruction, D and C, Ashermann's Syndrome
3. IVF Pregnancies, Multiple pregnancies, Elderly gravidas, postpartum endometritis, previous uterine irradiation

Diagnosis

1. USG

Loss of normal hypoechoic retroplacental myometrial zone, presence of “multiple placental lakes”. Thinning and disruption of uterine serosa - bladder interface and focal exophytic masses involving bladder.

2. Color Doppler

Hypervascularity of uterine serosa and bladder interface. Distance between serosa bladder wall interface and the retroplacental vessels is <1mm and if there are large intraplacental lacunae. Dilated vascular channels with pulsatile venous flow over the cervix.

3. MRI

To define anatomy, degree of invasion and possible ureteral and bladder involvement. Detour vessels and dark interplacental bands. No particular advantage over grey scale, unless there is posterior wall placenta accreta.

4. Maternal alpha fetoprotein

Unexplained rise

Strategy

Plan delivery of patient between 34-37 weeks. Beyond that increases risk of bleeding

If diagnosed in antenatal: Deliver at **tertiary Care Centre**, with an Experienced Obstetrician, may require the services of a general surgeon and Uro-surgeon and interventional radiologist. Consent for Hysterectomy and repair of any visceral damage; with adequate supply of Blood (4 units) and components. Counseling should include risk to life.

NEVER IN A LOW RESOURCE SETTING

(**If diagnosed on table** above support team should be called immediately and / or place tight sutures with packing of uterus and transfer to tertiary care centre)

Management

Central Line insertion, Pre op catheters in Common Iliac Vessels, Ureteric stenting may be done

Midline vertical abdominal incision with wide exposure and quickly look at the anatomical cardinals with the vascular arcade, Classical Cesarean incision, delivery of baby. Uterine eventeration, pelvis evaluation and assess vasculature. Common Iliac Artery may be clamped and proceed with Bilateral Uterine Artery Ligation. There after assess possibility of removal of Placenta. Placenta may be retained with closure uterus in case of no bleeding. Peripartum Hysterectomy often required in case of persistent bleeding. Advise Tubectomy in cases of conservation.

Attempts for partial / total placental removal prior to hysterectomy were associated with twice much as blood loss

Conservative managed cases to be followed closely for re-opening and hysterectomy.

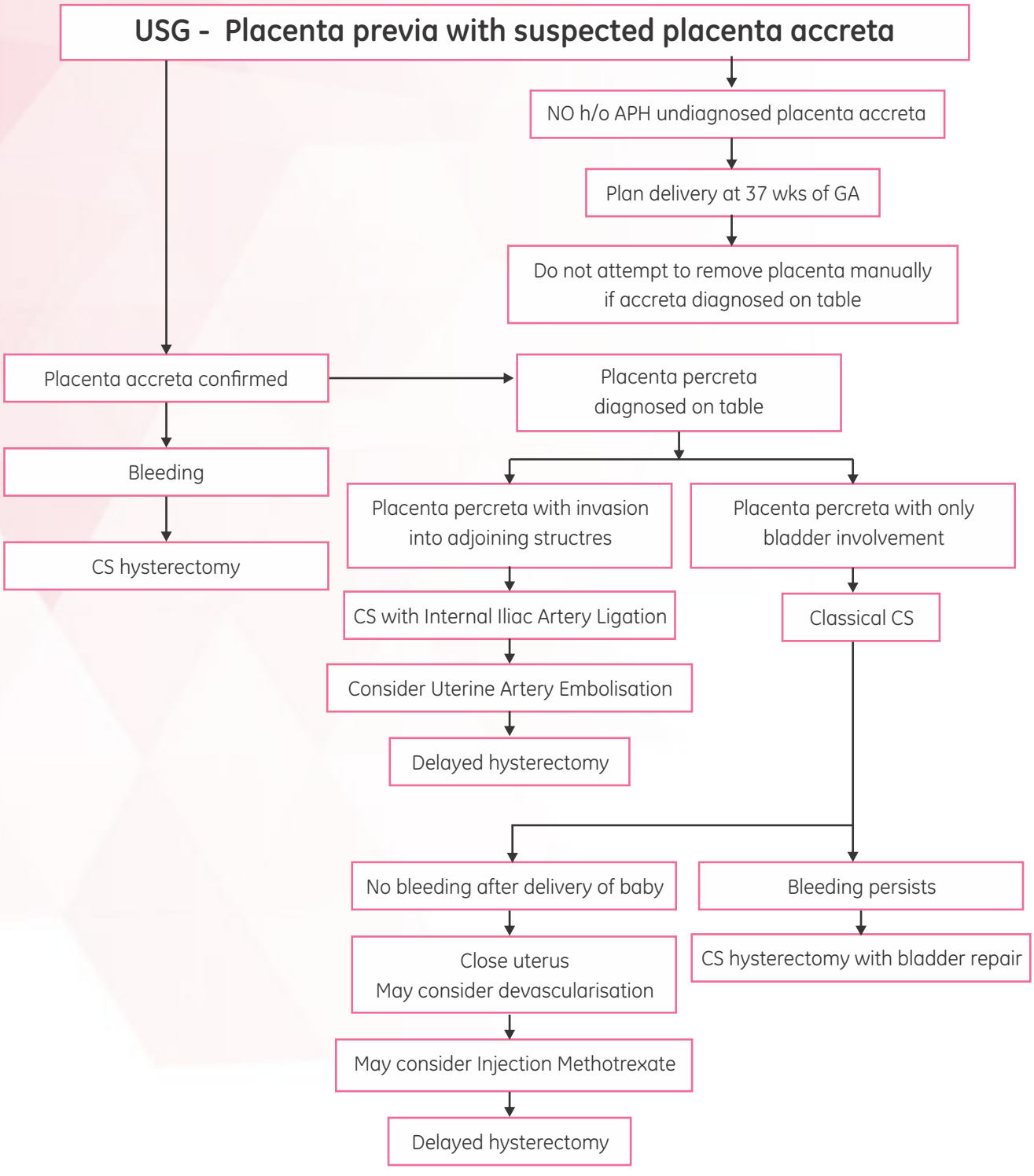
Complication

Moderate to massive Hemorrhage; bladder rents and avulsion; Ureteric damage, other visceral injuries,

DIC, Septicemia, Embolism, Pulmonary edema, Electrolyte imbalance and mortality.

Attempts at placental removal increases morbidity significantly to 67 % versus 36 % compared with no attempts at removal before hysterectomy

Fluid overload and electrolyte imbalance.



Conclusion

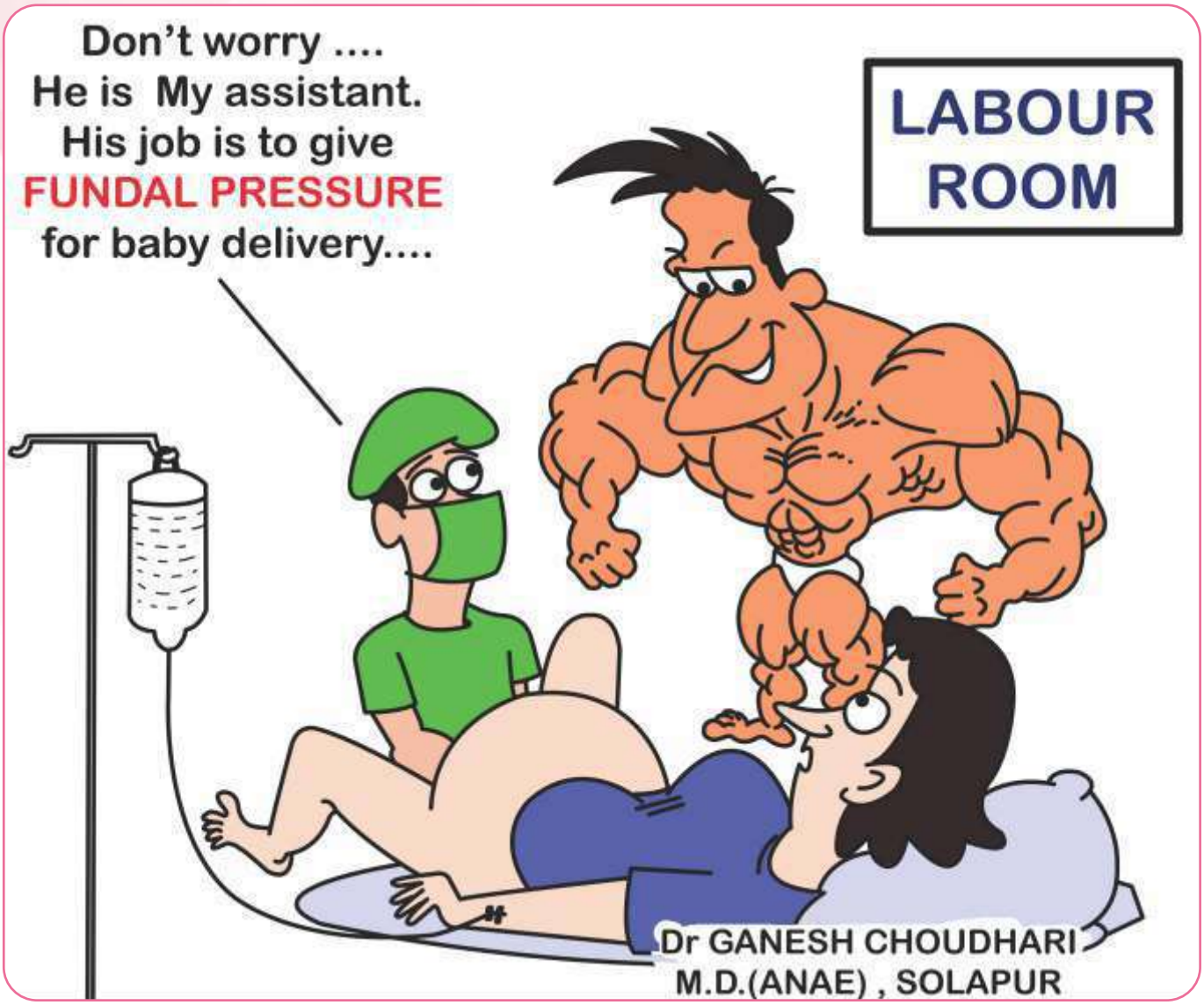
To enhance patient safety, it is important that the delivery be performed in an operating room by an experienced obstetric team that includes an obstetric surgeon, with other surgical specialists, such as urologists, general surgeons, and gynecologic oncologists, available if necessary.

Although a planned delivery is the goal, a contingency plan for emergency delivery should be developed for each patient.

The timing of delivery should be individualized, depending on patient circumstances. Combined maternal and neonatal outcome is optimized in stable patients with a planned delivery at 34 weeks of gestation.

The recommended management of suspected placenta accreta is planned preterm caesarean hysterectomy with the placenta left in situ.

Fun Corner



07

PRIMIGRAVIDA WITH FLOATING HEAD AT TERM

Author :

Dr Uma Wankhede

Prof. Dept. of Obstetrics & Gynecology,
B.J. Medical College, Pune

Author :

Dr Laxmikant Behele

Consultant of Obstetrics & Gynecology,
Lotus Speciality Hospital, Wagholi, Pune

Engagement of head is a mechanism by which the largest diameter of baby's head i.e. biparietal diameter enters the pelvic inlet.

Engagement around 37-38 weeks

In present clinical practice, we have found engagement of head occurring at 38-40 weeks or even in first stage of labour.

Following factors determine the process of engagement of fetal head

1. Power

- Abnormalities of Uterine Contraction

2. Passage

- **Uterine**
  - Fibroid
  - (Lower uterine segment) Placenta Previa
- **Extrauterine**
  - CPD (MC)
  - Contracted Pelvis
  - Ovarian Tumours
  - Fecal Impaction

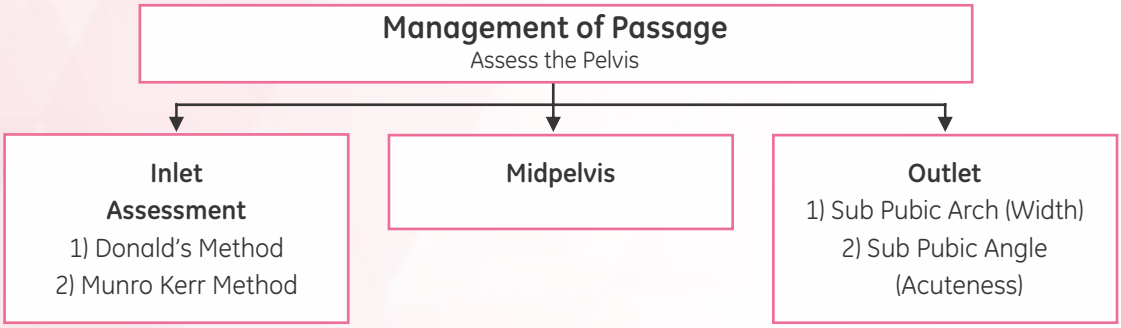
3. Passenger (Common)

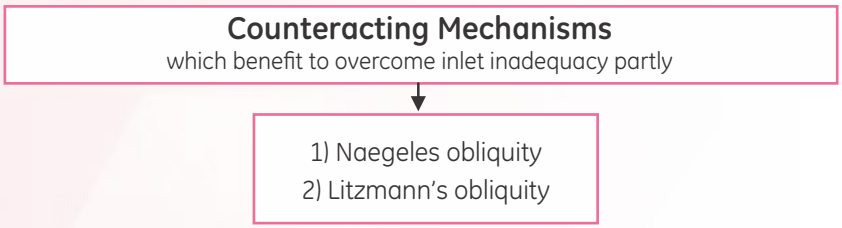
- Malposition – Deflexion & OP Position
- Big Baby
- Big Head – Direct LSCS
- Cord around the neck
- Prematurity

Management of Power

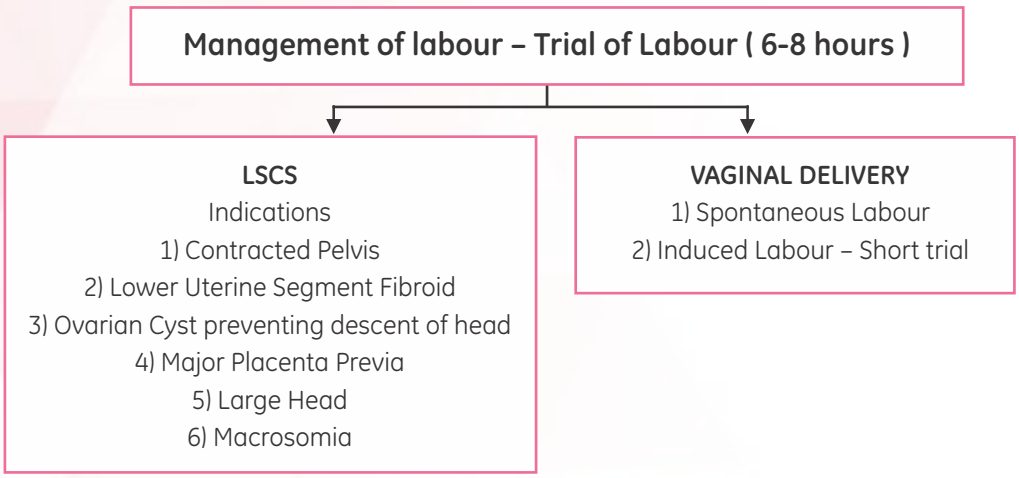
Once the absolute indication of LSCS in floating head are ruled out, consider

- **Induction of Labour**
  - 1) PGE 2
  - 2) Misoprostol (25mcg)
  - 3) Oxytocin
- **Augmentation**
  - 1) Oxytocin (preferred)
  - 2) Misoprostol





Note IMP : Deeply Engaged fetal head in the last four weeks of pregnancy practically rules out disproportion.



08

UNTIMELY RELEASE OF LIQUOR (PPROM)

Author :
Dr Chandrakant S Madkar
Professor (ObGyn)
Dr. D. Y. Patil Medical College, Pune

Author :
Dr Hemant G Deshpande
Professor and HOD (ObGyn)
Dr. D. Y. Patil Medical College, Pune

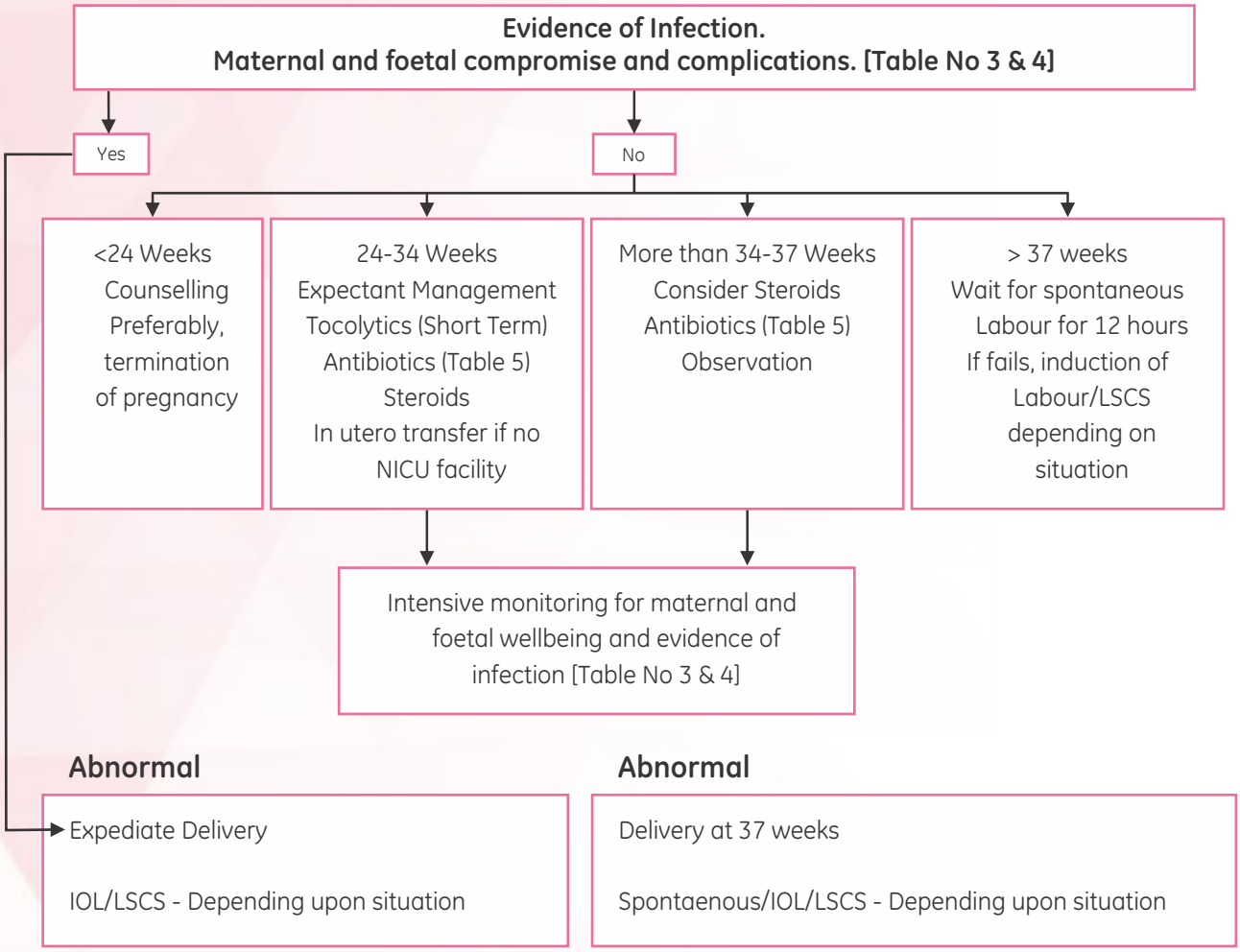
Untimely rupture of membranes is also called premature rupture of membranes [PROM] or pre-labour rupture of membranes. There are two types:

PROM — Atleast 1 hr before onset of normal labour

PPROM — Before 37 weeks of pregnancy

Management of untimely rupture of membranes:

Confirm Diagnosis [Table No 1] – PROM/PPROM [Clinical Exam
Baseline tests – [Table No 2] – TLC, DLC, CRP, Vaginal Swab, Urine C/S
USG – [BPP, AFI, Anomaly, IUD] + NST



The CTG monitoring is must for all the deliveries.

Table 1 – Diagnosis of PROM and PPROM

- History of leaking PV – Avoid PV and Do asepctic per-speculum
- Gush of liquor ++, if no, ask the patient to cough or give fundal pressure.
- Examination of amniotic fluid – Nitrazine paper test – Colour change from yellow to blue
- Fern pattern ++
- Nile blue sulphate for orange fat cells.
- Presence of placental α-microglobulin1 (Amnisure) – Foetal fibronectin
- Injection of dye – e.g. Indigo-Carmin- Not done now-a-days.
- USG – oligohydramnios.
- See for cervical dilatation, effacement and cord prolapse on P/S

Table 2 – Clinical Examination and Investigations

- Vital parameter of the mother – TPR, BP and systemic examination.
- Obstetric examination
- PV to be avoided, and P/S examination as mentioned in table 1.
- USG - Number of foetuses, anomalies, IUGR, presentation, BPP, AFI and maturity.
- NST
- Complete haemogram, CRP, Urine routine/Micro – C/S.
- High vaginal and endocervical swab for Gram stain and C/S.
- Amniotic fluid collection for investigations like maturity.

Table 3 – Infection monitoring

- Maternal pulse, temp measurements four times a day.
- Abdominal palpation twice a day for pain and tenderness.
- Daily note of vaginal loss of fluid and fowl smelling discharge/Purulent discharge/bleeding.
- CRP, TLC, DLC alternate day.
- High vaginal swab, urine routine and C/S twice a week

Table 4 – Foetal Monitoring

- Foetal movement count chart.
- Daily NST, Growth scans two weekly, BPP and AFI twice a week.

Table 5 – Choice of antibiotics

- Prophylactic use of antibotics has been advocated by different guidelines like CDC, RCOG, ACOG and they are almost similar. ACOG regime recommends combination of ampicillin 2 gm and erythromycin 250mg iv 6 hourly for 48 hours followed by oral doses of 250 mg ampicillin q.i.d. and 333 mg of erythromycin t.i.d for 7 days.
- However for treatment, higher antibiotics like cefixime, cefotaxime +metrogyl+gentamycin is advocated.
- All the guidedlines stress treatment of GBS (Group B steroptococci) infection detected at the earliest onset because it can cause complications like pneumonia and meningitis in neonates with fatality upto 50% and neurological damage in survivors.
- ACOG has given clear cut indications for GBS prophylaxis.

  1. Ano-genital GBS culture positive

  2. GBS bacteruria detected in current pregnancy.

- H/o of previous birth with neonate having GBS infection.
- Unknown GBS status with PROM
- Any PROM more than 18 hours after rupture.
- Both CDC and ACOG have suggested following regime for prophylaxis of GBS:
- Penicillin G – 5 million units iv followed by 2.5 million 4hourly till delivery.

Or ampicillin 2 gm loading dose followed by 1 gm every 4 hours is also effective.

- Patients allergic to Penicillin can be given other options like cefazoline, clindamycin, vancomycin.

This treatment reduces incidence of GBS infection by 90%.

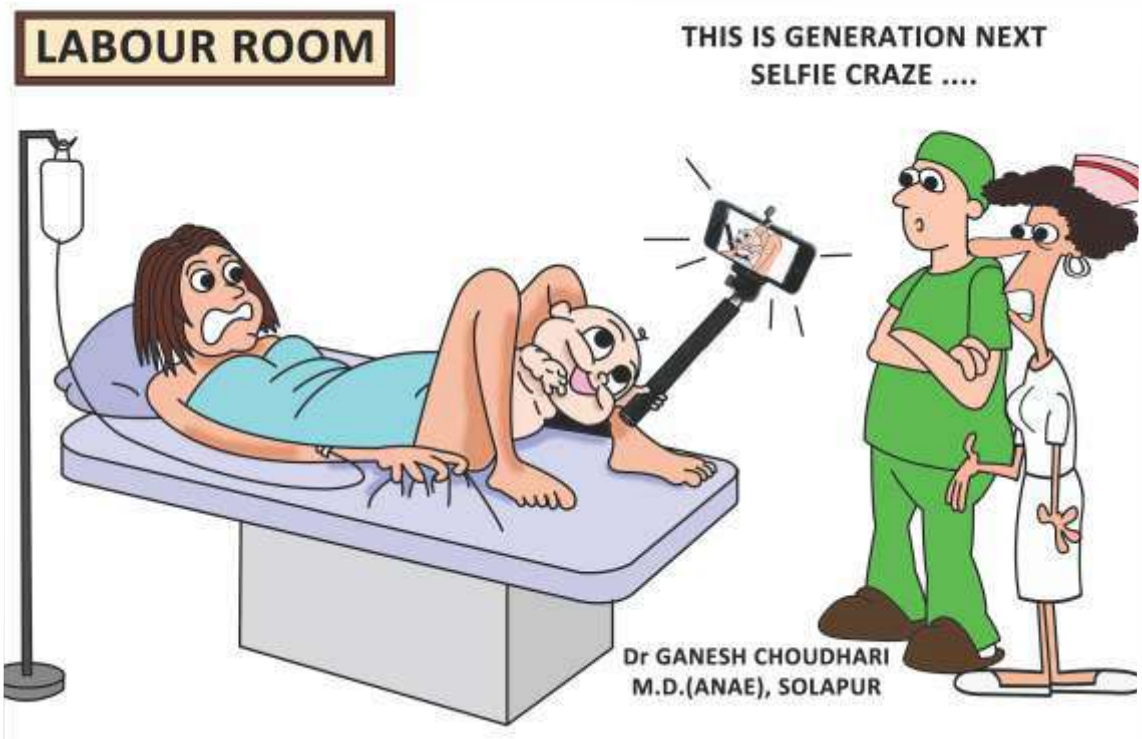
Table 6 – Recent Advances

1. Amnio- infusion is the recent treatment given – infusion of normal saline into the amniotic cavity is found to be useful at early onset of PROM resulting in oligohydramnios. It has been shown to reduce pulmonary hypoplasia.

   Patient in labour who has been diagnosed to have thick meconium stained liquor can be helped by amnio-infusion which dilutes the amniotic fluid thereby preventing complication of thick meconium stained liquor.

2. Sealing of the leak by amnio-patch which is mixture of fibrin, platelets, cryoprecipitae mixture forming glue – is used to seal the leaking point in membranes.

Fun Corner



09

NEWER APPROACHES IN MANAGEMENT OF SEVERE PPH

Author :

Dr. Girija Wagh

MD, FICOG, Dip Endoscopy, FICS

Professor , Obstetrics & Gynecology | Bharati Vidyapeeth University Medical College, Pune

Consultant : Girija Hospital & Fertility Center, Kothrud | Cloudnine, Shivajinagar, Pune

Author :

Dr. Geeta Wadadekar

Assist. Prof,

Bharati Vidyapeeth University Medical College, Pune

PPH - How Much Is Severe? Identify Clinically

Diagnosis	Compensation	Mild	Moderate	Severe
Blood loss	500-1000 ml 10-15% of total blood volume	1000-1500 ml 15-25%	1500-2000ml 25-35%	2000-3000 ml 35-45 %
BP change systolic	None	Slight fall 90-100 mmHg	Marked fall 70-90mmHg	Profound fall 50-70 mmHg
Signs & symptoms	Palpitations Dizziness Tachycardia	Weakness Sweating Tachycardia	Restlessness Pallor Oliguria	Collapse Air hunger Anuria

Primary Goal-how Will You Assess Blood Loss & Arrest Bleeding ?

- **Clinical assessment –Preferred method (1)**
- **Visual assessment**

  requires training ,underestimates blood loss by upto 30%e.g

  small soaked swab (10x10cm)=50 ml

large soaked swab (45x45cm)=350 ml

PPH on bed –approx1000 ml

PPH spilling on floor -1500 ml

Full kidney tray-500ml

Quantification

- Use of drapes with prerecorded dry weight
- Under-buttocks, plastic, closed-ended, calibrated blood-collection drapes
- Measurement of blood clots

Simultaneous- Minimise Impact Of Blood Loss & Resuscitate

- **Call For Help!!!**
- Early **involvement of senior staff members** – obstetrics, anaesthesia, haematology, physician, intensivist
- **ALERT Blood bank** authorities for availability and processing of blood & blood products
- Rapid replacement with **warmed crystalloid** as much as 3 litres through **2 large bore IV cannula** number **16/18**
- Foleys **catheter** with **urometer**
- Keep the **woman warm, oxygen by face mask**
- Aortic compression manual/EACD
- Use of Nonpneumatic Anti shock Garments
- **Send Blood investigations –**
- Group and cross match if not done already, ideally should be done for all women who are in labor
- CBC, hematocrit
- Fibrinogen, APTT, PT/INR
- LFT /RFT /Serum electrolytes /ABG/lactate as & when required
- **Request O negative blood** if compatible blood is not available
- **Call Code Blue as per norms**

Continuous Monitoring Of Vital Parameters

- PULSE
- BP

- URINE OUTPUT
- SPO2
- Respiratory rate
- **Shock index(2)-Heart rate/systolic BP**
- **MODIFIED Shock index(2) -Heart rate/MAP MAP=(DBPX2)+SBP /3**

Identify Cause

Look for 4 T

- **TONE ?**

  Multipara/big baby/ prolonged labor /anemia

- **TISSUE ?**

  Retained placental bits/ lobes / membranes /clots adherent - accrete

- **TRAUMA?**

  Instrumental/difficult delivery/ big baby/prev scar on uterus /prev LSCS / cervical/ vaginal /forniceal /broad ligament tears or hematoma

- **THROMBIN?**

  Family history /known coaguopathy/severe or rapid hemorrhage- DIC /APH –abruption / associated liver or renal pathology

Tone / Tissue - What Next?

- Continuous bimanual massage of uterus
- Remove blood clots / bits of membranes/retained placental lobes
- Oxytocin IV bolus 5IU then 20 units in 500 ml of RL
- Carboprost Deep intramuscular injection 250 mcg every 15 minutes maximum 8 doses
- Tab Misoprostol 800 mcg PR
- Methargin 1 amp IM
- **Inj Tranexamic acid 1 gm iv (3)**
- Transfer to the operating room promptly if ongoing loss &/ OR > 1500 mL
- **Check for uterine inversion**

Newer Temporizing Methods

- **External aortic compression-manual (4)**

- Apply pressure with a closed fist on the abdominal aorta slightly to the patient's left and immediately above the umbilicus.
- **External Aortic Compression Device (EACD),** a hand-made spring device held in place by a leather belt used as a first aid temporizing intervention.(5)

Non-pneumatic Anti-shock Garment (6)

- Lightweight, re-usable lower-body compression garment made of neoprene and VelcroTM
- How does it work?
- Decreases blood loss; thereby stabilizing the woman until definitive care is accessed.
- Increases blood pressure by decreasing the vascular volume and increasing vascular resistance within the compressed region of the body, but does not exert pressure sufficient for tissue ischemia like its predecessors.
- Can be used for OH of any etiology,
- Can be applied by individuals with minimal training
- Does not interfere with the use of other PPH management interventions.
- Quasi-experimental studies at the tertiary care facility level have shown significantly reduced measured blood loss, more rapid recovery from shock and decreased mortality.(7)
- The NASG is recommended as a temporizing measure for PPH by the WHO and FIGO(8)

Trauma/ Persistent Atony What Next ?

- **Shift to OT**
- Anesthesia
- **Continued resuscitation**
- **CONSENTS** & surgical **CHECKLISTS**

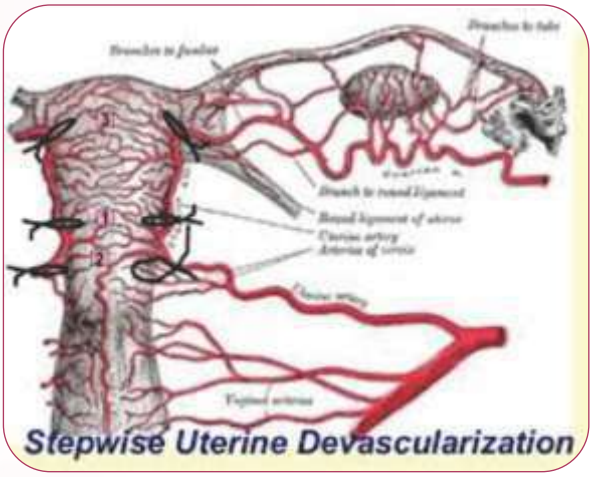
Exploration With Appropriate Repair

- Cervix
- Vagina
- Scar rupture prev LSCS
- Broad ligament hematomas
- **Balloon tamponade for atonic PPH With**
- Condom catheter
- Bakri ballon

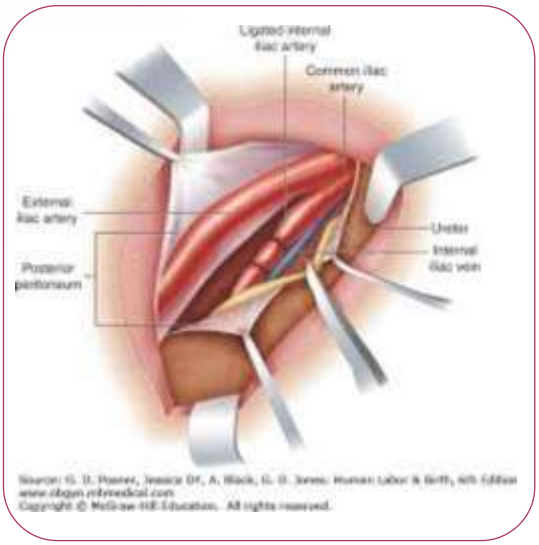
- Stensteken – Blakmore tube
- Packing uterine cavity with gauze

B Lynch Or Modified B Lynch for Atonic PPH

Stepwise Uterine Devascularization



Bilateral internal iliac artery ligation



Subtotal/total Obstetric Hysterectomy

- Technique
- Rapid but careful
- Dissect/clamp /cut all pedicles till uterine then Ligate

Options In Known Cases Of Placenta Accreta

- **Interventional radiology-**
- Uterine atery embolisation or
- Placement of atrerial catheter prior to elective LSCS

Thrombin / Coagulopathy

- **Conventional resuscitation in shock**
- A stepwise approach starting with intravenous fluids, mainly cryastalloids followed by red blood cells (RBCs) and clotting factors or platelets.
- Start with immediate fluid replacement, crystalloids through large bore IV canulae
- Maximum 3 liters , with continuous evaluation of clinical parameters and degree of improvement
- Initiate PCV /FFP / RDP transfusion
- Hematocrit, CBC , serum fibrinogen &PT INR used to guide the decision
- This approach Corrects hypovolemia, **but** worsens existing dilutional coagulopathy, enhances fibrinolysis and contributes to acidemia and hypothermia. (9)

What Is New?

- **Initiation of MASSIVE TRANSFUSION PROTOCOL if SHOCK GRADE 3 /4 OR COAGULOPATHY OR UNCONTROLLED BLEEDING**
- Recent resuscitation algorithms of PPH are **modeled after trauma,** and massive transfusion protocols have demonstrated improved patient outcomes.[10]

Definition

- Replacement of one entire blood volume within 24 h
- Transfusion of >10 units of packed red blood cells (PRBCs) in 24 h
- Transfusion of >4 units of PRBCs in 1 h when on-going need is foreseeable
- Replacement of 50% of total blood volume (TBV) within 3 h.

WHAT IS MASSIVE TRANSFUSION PROTOCOL? (11)

- **EARLIEST POSSIBLE INITIATION of transfusion of blood & blood products**
- **RBC:FFP:PLATLET ratio 1:1:1 OR 2:1:1 varies as per local guidelines**

Targets Of Resuscitation In Massive Blood Loss

- Mean arterial pressure (MAP) around 60 mmHg, systolic arterial pressure 80-100 mmHg (in hypertensive patients one may need to target higher MAP)
- Hb 7-9 g/dl
- INR <1.5; activated PTT <42 s
- Fibrinogen >1.5-2 g/L
- Platelets >50 × 109/L
- pH 7.35-7.45
- Core temperature >35.0°C
- Base deficit <3.0/lactates <2 mEq/L.
- Rapid blood product selection may benefit from the use of a **thromboelastograph,** a point-of-care **device** that **examines clot formation and dissolution in whole blood,** and provides faster results than laboratory testing.(11)

What Is New?- Fibrinogen

- The hypofibrinogenemia seen in severe PPH is of great concern and considered an early predictor of hemorrhage severity,leading to dilutional coagulopathy & DIC (12)
- Treatment of hypofibrinogenemia involves cryoprecipitate transfusion to maintain fibrinogen levels (100–200 mg/dl).(12)
- While not approved currently for PPH treatment, fibrinogen concentrate is available in the US, Canada and Europe for other indications and may be an advantageous alternative

Advantages -

- Fibrinogen concentrate is stable at room temperature
- Can be rapidly administered, unlike cryoprecipitate, which must be kept frozen and then thawed prior to administration.
- Fibrinogen concentrate also contains a greater concentration of fibrinogen and more reliably increases fibrinogen levels.(12)
- **The first RCT (FIB-PPH) is currently in progress.**(13)

Recombinanat Factor VII(12)

- only in conjunction with local massive transfusion guidelines
- recommended dose is 200 µg/kg initially followed by repeat dose of 100 µg/kg at 1 h and 3 h[14]
- considered only as a lifesaving measure for PPH refractory to standard therapy
- Action is dependent upon presence of adequate fibrinogen and platelets in circulation .
- Thus, where clinical response to rFVIIa is sub-optimal, evaluation and treatment with cryoprecipitate, or platelet transfusion should be initiated.[15]

1) World Health Organization. WHO recommendations for the prevention and treatment of postpartum hemorrhage. (2012).

(2) Patel A, Goudar SS, Geller SE et al.Drape estimation vs. visual assessment for estimating postpartum hemorrhage. Int. J. Gynaecol. Obstet.93(3), 220–224 (2006).

(3) The World Maternal Antifibrinolytic (WOMAN) Trial Lancet (26 April 2017)

(4),(5) Riley DP, Burgess RW. External abdominal aortic compression: a study of a resuscitation manoeuvre for postpartum haemorrhage. Anaesth. Intensive care22(5), 571–575 (1994).

(6) World Health Organization. WHO recommendations for the prevention and treatment of postpartum hemorrhage. (2012). Miller S, Fathalla MM, Ojengbede OA et al.Obstetric hemorrhage and shock management: using the low technology Non-pneumatic Anti-Shock Garment in Nigerian and Egyptian tertiary care facilities. BMC Pregnancy Childbirth10, 64 (2010).

(7) Miller S, Turan JM, Dau K et al.Use of the non-pneumatic anti-shock garment (NASG) to reduce blood loss and time to recovery from shock for women with obstetric haemorrhage in Egypt. Global Public Health2(2), 110–124 (2007). Miller S, El Ayadi A. Meta-analysis of 3,651 Women with Severe Obstetric Hemorrhage/Hypovolemic Shock Treated with Non-Pneumatic Anti-Shock Garment. (2012).Royal College of Obstetricians and Gynaecologists, Royal College of Radiologists, British Society of Interventional Radiology. The Role of Emergency and Elective Interventional Radiology in Postpartum Haemorrhage. Good Practice No. 6. (June 2007).

(8) World Health Organization. WHO recommendations for the prevention and treatment of postpartum hemorrhage. (2012).

(9) Tanaka KA, Szlam F. Treatment of massive bleeding with prothrombin complex concentrate: argument for. J. Thromb. Haemost.8(12), 2589–2591 (2010).

(10) Burtelow M, Riley E, Druzin M, Fontaine M, Viele M, Goodnough LT. How we treat: management of life-threatening primary postpartum hemorrhage with a standardized massive transfusion protocol. Transfusion47(9), 1564–1572 (2007).

(11) Huissoud C, Carrabin N, Audibert F et al.Bedside assessment of fibrinogen level in postpartum haemorrhage by thrombelastometry. BJOG116(8), 1097–1102 (2009).

(12) Padmanabhan A, Schwartz J, Spitalnik SL. Transfusion therapy in postpartum hemorrhage. Sem. Perinatol.33(2), 124–127 (2009). Knight M, Callaghan WM, Berg C et al.Trends in postpartum hemorrhage in high resource countries: a review and recommendations from the International

Postpartum Hemorrhage Collaborative Group. BMC Pregnancy Childbirth9, 55 (2009)

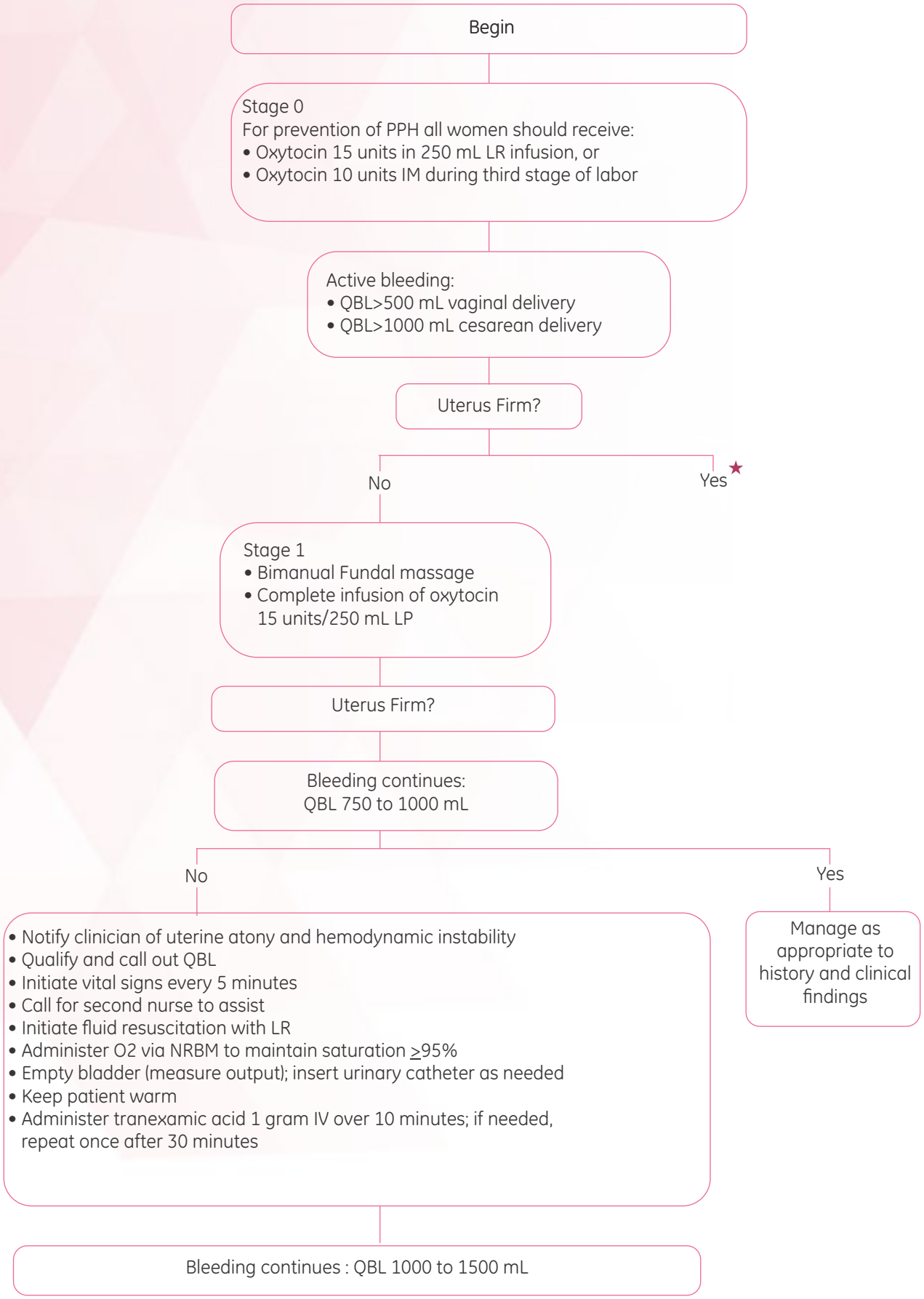
(13) Wikkelsoe AJ, Afshari A, Stensballe J et al.The FIB-PPH trial: fibrinogen concentrate as initial treatment for postpartum haemorrhage: study protocol for a randomised controlled trial. Trials13, 110 (2012). Neal MD, Marsh A, Marino R, Kautza B, Raval JS, Forsythe RM, et al. Massive transfusion: An evidence-based review of recent developments. Arch Surg. 2012;147:563–71

(15) Sobieszczyk S, Breborowicz G. The use of recombinant factor VIIa. In: A Comprehensive Textbook of Postpartum Hemorrhage(2nd Edition). Arulkumaran SS, Karoshi M, Keith LG, Lalonde AB, B-Lynch C (Eds) (2012

Summary

- Stay prepared
- Anticipate risk factors
- Regular training of medical personnel & paramedics involved
- Clear ,evidence based Guidelines &protocols in place
- PPH DRILL
- PPH KIT
- **Time is of essence !!!**
- **Multidisplinary ,work as a team ,call for help**
- **Timely transfer** to tertiary care center **after stabilizing the patient or with continued on the way resuscitation**
- DO NOT forget **Communication, documentation & counseling**

Algorithm for Approach to Postpartum Hemorrhage (PPH) due to Uterine Atony



*Ref by Texas Children's Hospital

No

Manage as appropriate to history and clinical findings

Yes

Stage 2 - Institute rapid progression of therapies

- Activate RRT, notify anesthesiology, move patient to OR (if not there), initiate second IV site
- Call out blood loss, S&S of hemodynamic instability including VS*
- Keep patient warm : Apply warm blankets, utilize forced warm air blanket
- Sequence of therapies: Oxytocin first then any other intervention based on clinical situation and clinician choice

Uterotonics:

- Continue oxytocin administration titrated to uterine tone
- Carboprost tromethamine (Hemabate) 0.25 mg IM/IMM (if no history of asthma) every 15 minutes as needed up to a maximum of 8 does (2 mg) and/or
- Methergine 0.2 mg IM (if no history of hypertensive disease) repeat as required every 2 to 4 hours
- Misoprostol 400 mcg (routes: Sublingual ¶, buccal, rectal)

Interventional therapies:

- Evaluate for and treat retained tissue, laceration, hematoma
- Consider intrauterine tamponade (Ebb/Bakri balloon)

Additional actions to consider:

- Consider transfusion of emergency release O negative PRBCs if needed immeadiately (obtaining type specific blood products may take 20 to 30 minutes)
- Obtain L labs:
- ABG with metabolites and H&H
- DIC panel (PT/INR, PTT, fibrinogen, D-dimer, platelet count)

Uterus firm?

No

Bleeding continues

QBL now >1500 mL

Yes

Bleeding continues

No

Mange as appropriate to history and clinical findings

Yes ★

Clinical to re-evaluate for other etiologies:

- Laceration(s)
- Hematoma
- Retained tissue
- Other

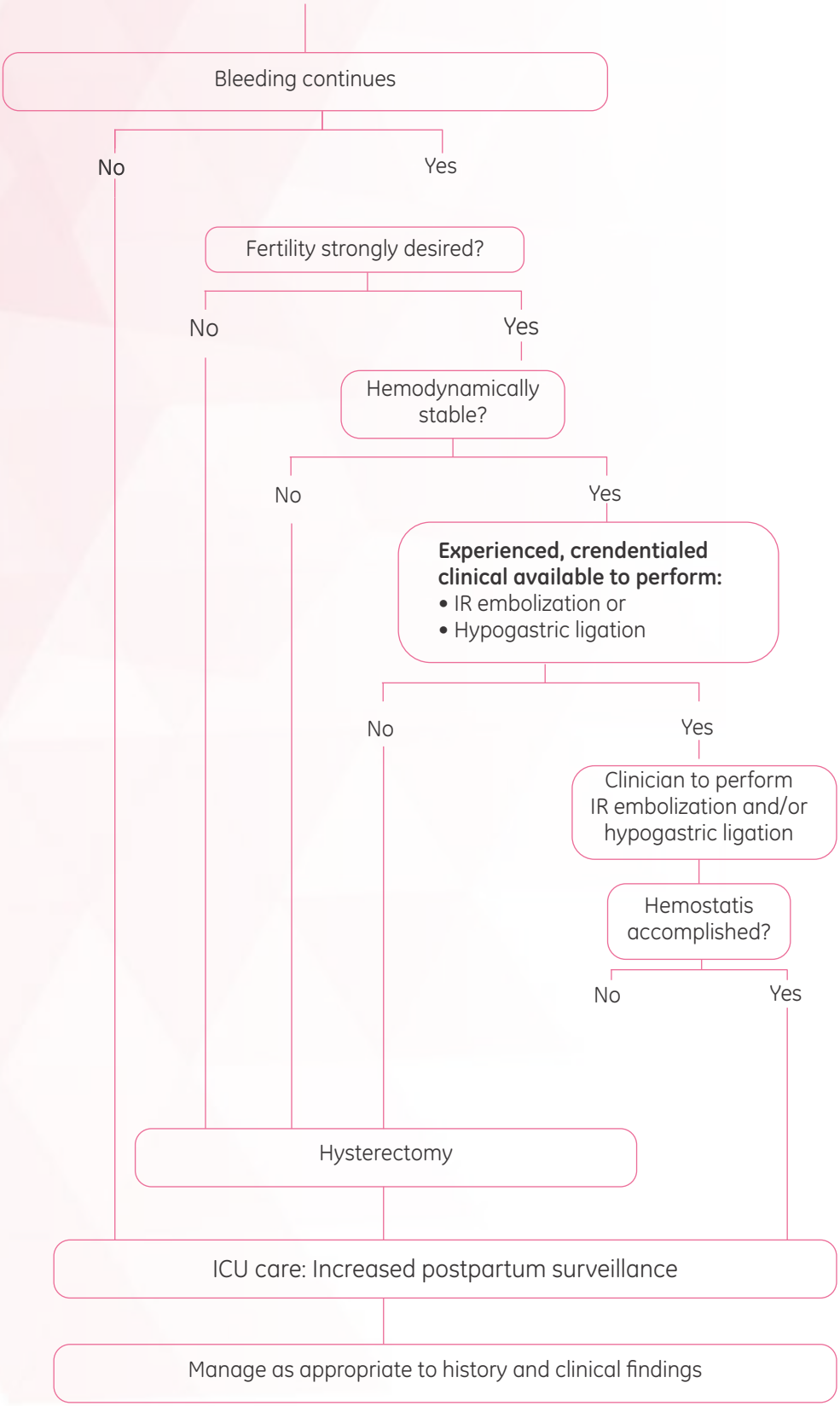
Stage 3

- Activate MTP, anesthesia to manage fluid resuscitation
- Consider inserting arterial and central venous pressure lines
- Consider intrauterine tamponade if not alredy perfomed
- Re-evaluate for retained tissue/laceration/hematoma : Pack and repair

Clinical to consider:

- Exploratory laparotomy (if vaginal delivery)
- Uterine artery ligation
- B-Lynch uterine compression suture
- Continue to call out QBL and S&S of hemodynamic instability*

*Ref by Texas Children's Hospital


Bleeding continues
No
Yes
Fertility strongly desired?
No
Yes
Hemodynamically stable?
No
Yes
Experienced, crendentialed clinical available to perform:
• IR embolization or
• Hypogastric ligation
No
Yes
Clinician to perform IR embolization and/or hypogastric ligation
Hemostatis accomplished?
No
Yes
Hysterectomy
ICU care: Increased postpartum surveillance
Manage as appropriate to history and clinical findings

10

SPACING
(Post Partum Contraception)

Author :
Dr Hemant Damle
Professor Dept., of Ob-Gyn SKN Medical College, Pune.

Author :
Dr Sanjeev Khurd
M.D. FICOG, Dipl. in Laparoscopy Surgery (Germany)

Long Acting Reversible Contraception with depot medroxyprogesterone acetate (DMPA)

Introduction

DMPA is a long acting reversible injectable contraceptive (LARC)

Composed of the progestin depo medroxyprogesterone acetate (DMPA). (Depo-Provera)150 mg/1 ml is administered by intramuscular injection.

Govt of India included this in National Family Planning program in June 2017 and started supplying it under 'Antara Program'. It is in use for more than 50 years.

Mechanism of Action

DMPA prevents pregnancy primarily by inhibiting the secretion of gonadotropins which prevents ovulation. DMPA also thickens cervical mucus and causes thinning of the endometrial lining.

Effectiveness

With consistent and correct use, the probability of pregnancy is 0.3% (0.3/100 women years). With typical use the failure rate is 3%. These estimates apply to an 11-13 (Every 3 month) week regimen.

Precautions / Contraindications According to WHO's Medical Eligibility Criteria

* *3- Use is not recommended. Referral for clinical recommendation is needed.*
* ***4- Absolute contraindication***

- Current breast cancer (absolute contraindication)**(4)**
- History of breast cancer with no evidence of current disease x 5 years (3)
- Known or suspected pregnancy (3)
- Undiagnosed vaginal bleeding (3)
- Multiple risk factors for cardiovascular disease (3)
- History of or current ischemic heart disease (3)
- History of stroke (3)
- Severe cirrhosis (3)
- Liver tumors: hepatocellular adenoma or malignant (3)
- Rheumatoid arthritis on long-term corticosteroid therapy with history of or risk factors for fractures (3)
- Diabetes mellitus with nephropathy, retinopathy, neuropathy (3)
- Other vascular disease or diabetes of > 20 years duration (3)
- Systemic lupus erythematosus (3/2)
- Migraine with aura with continued use (3) (see below)
- Known hypersensitivity to medroxyprogesterone acetate or any other ingredients in solution (3)

Indications

Woman with no contraindications (as listed above), who wishes to avoid pregnancy for at least one to two years and is able to tolerate menstrual irregularities.

Non-lactating postpartum (6 or more weeks after delivery)

Post-abortal women

HIV-positive women may use DMPA with no ill effect (other than side effects any user may experience).

Counseling

Menstrual changes are universal in women using DMPA and include irregular bleeding, spotting (lasting 7 or more days during the first several months of use) and amenorrhea. Approximately half of all women using Depo-Provera for one year experience amenorrhea. Menstrual changes are the most common cause for dissatisfaction and discontinuation of use. Proper counseling, selection, and follow-up should reduce client dissatisfaction. Medical intervention for irregular or heavy bleeding is rarely necessary, and anemia is uncommon.

The median time to conception following the last DMPA injection is 9-10 months. Within the first 12 months following discontinuation, almost 70% of former users had conceived and over 90% had conceived by 24 months.

DMPA is associated with a decrease in bone density.

Administration of DMPA

To minimize the risk that a client is pregnant, initial administration of DMPA should occur within the first 5 days of the start of a normal menses, OR:

1. The client is currently using a highly effective contraceptive method (such as combined hormonal contraceptives or IUD).
2. The client has abstained from intercourse for at least 10 days prior to injection and has a negative on-site urine pregnancy test. A backup method of birth control is advised for 7 days post injection to prevent possible pregnancy.
3. Immediately postpartum or post-abortion, with the exception of lactating mothers.

Women who return more than 14 weeks after a previous injection should have pregnancy excluded before re-injection and use backup birth control for 7 days after reinitiating DMPA.

When administering DMPA, the **medication should be shaken vigorously just prior to use.**

Depo-Provera IM is administered as a deep intramuscular injection in the upper outer quadrant of the deltoid or buttock muscle. Do not massage the area immediately after injection.

Follow-up

The client will be advised to return to the clinic every 12 weeks as long as contraceptive protection through DMPA is desired.

The total time frame for acceptable reinjection week 10 to the end of week 13

Table 1 Adverse Reactions that Were Reported by More than 5% of Subjects Body System*	**Adverse Reactions (Incidence (%))**
Body as a Whole	Headache (16.5%) Abdominal pain/discomfort (11.2%)
Metabolic / Nutritional	Increased weight> 10 lbs at 24 months (37.7%)
Nervous	Nervousness (10.8%) Dizziness (5.6%) Libido decreased (5.5%)
Urogenital	Menstrual irregularities: bleeding (57.3% at 12 months, 32.1% at 24 months) amenorrhea (55% at 12 months, 68% at 24 months)

Adverse reactions leading to study discontinuation in ≥ 2% of subjects : bleeding (8.2%), amenorrhea (2.1%), weight gain (2.0%)

No Cold Cain no Refrigeration.

MPA-SC Subcutaneous Injection. New Launch.

This Uniject system has a thermoformed plastic laminate reservoir with ultra-thin needle attached by a polyethylene port. It is designed for single use and immediate disposal as it has a one-way valve and collapsible reservoir that cannot be re-filled.

Single dose contains 104 mg /0.65 ml of Medroxy Progesterone Acetate, to beadministered every 3 months.

Standard Procedures Algorithm for Prescribing & Administering Depot Medroxyprogesterone Acetate

1) Health and History Screen

Review Hormonal Contraceptive Self-Screening Questionnaire.

Refer to Medical Eligibility Criteria.

1 or 2 - Hormonal contraception is indicated, proceed to next step.

3 or 4 - Hormonal contraception is contraindicated --> Refer

(Current Breast Malignancy, DVT, BP above 160, Long standing Diabetes, Stroke etc.)

No Contraindications

2) Pregnancy Screen

a. Did you have a baby less than 6 months ago, are you fully or nearly-fully breast feeding, AND have you had no menstrual period since the delivery?

b. Have you had a baby in the last 4 weeks?

c. Did you have a miscarriage or abortion in the last 7 days?

d. Did your last menstrual period start within the past 7 days?

e. Have you abstained from sexual intercourse since your last menstrual period or delivery?

f. Have you been using a reliable contraceptive method consistently and correctly?

If YES to AT LEAST ONE and is free of pregnancy symptoms, proceed to next step.

If NO to ALL of these questions, pregnancy can NOT be ruled out --> Refer

No Contraindications

Physical examination including Breast, BP, PAP smear if due.

Councelling

Discuss DMPA therapy with patient.

a) Address any unexplained vaginal bleeding that worries patient such as when not related to a recent pap or sexual intercourse.

b) Counseling - Discuss the side effects (bleeding irregularities, etc.)

c) Counseling - Discuss plans for follow-up visits, particularly for q 3 month administration of DMPA; Stress

importance of returning for next injection within 11-13 weeks of previous injection. Provide patient with specific calendar date range for next injection.

d) Counseling - Caution with use of DMPA > 2 years (due to loss of bone mineral density). For therapy > 2 years,

First Dose of DMPA

Monitor patient for 20 minutes for adverse reactions.

Note: Instruct patient that if this injection is notwithin 7 days of start of her period, then abstain oruse backup method for 7 days.

Subsequent Dose of DMPA

confirm that date of last injection was within 11-15 weeks.

- If > 15 weeks ago, then pharmacist must rule out pregnancy (repeat Step 2, and document), and instruct patient to abstain or use backup method for 7 days.
- **If between 11-15 weeks ago, administer the medication**

Calcium Supplementation esp. in Lactation Documentation and follow up records.

Post Partum IUCD

Post Placental / Intra Caesarean / Within 48 hrs after delivery. Councelling about contraception ideally starts during Ante Natal Period

PPIUCD services and "Performance Linked Payment Plan to Service Provider and ASHAs" (PLPPSPA) SCHEME

An ALGORITHM FOR QUALITY SERVICE PROVISION AND DATA RECORDING

Antenatal Clinic

ANC POD ← **Medical officer / Specialist / Counselor / Staff Nurse / ANM**

- Counseling regarding postpartum contraception (Antenatal period is ideal time to start counseling)
- Family planning method stamp on ANC card and tick mark client option, if decided at this time. {Handwritten text, if stamp not available. (refer to footnote at*)}
- Entry in RCH / ANC register (Column NO. 42)

Subsequent ANC Visits

Reinforcing the advice given on first visit and asking or reconfirming client's decision about post partum FP method, during every antenatal visit, by counselor / ANM MO

See stamp tick mark the client's choice, if not already done on earlier visits

Labor room (LR)

- Counseling and confirmation of PPIUCD intention during early labor
- Use of checklist to rule out contraindication for PPIUCD (Refer MEC)
- Preparedness of labor room team for post placental / post caesarian insertion, as applicable
- Consent for PPIUCD insertion

Delivery (Vaginal / LSCS)

Ensure round the clock availability of IUCD in Labor Rooms and Operation Theatres, including both, elective & emergency OTs

Post placental / intra caesarean insertion

- Entry in Delivery Register / OT Register / PPIUCD register / Main IUCD Register (All columns as per guidelines, along with the name of the provider, to be filled).
- Verification of each entry by sister-in-charge of LR / OT
- IUCD card to be filled

Post natal ward or post operative ward

If not inserted earlier and if the candidate shows potential

- PPIUCD insertion and FU stamp on discharge slip.

- Re-counseling and offering PPIUCD again for "within 48 hours insertion"

Follow-up (FU) Clinic or Postnatal clinic

Conduct related examination and investigations, as and when required

End of the Month

* Stamp for use on ANC card at the time of counseling women

Post partum family planning method opted

- Tubectomy
- IUCD _____
- Any other traditional methods (specify) _____
- Condom _____
- None

** Follow up stamp to be put on the discharge slip of PPIUCD acceptor

PPIUCD insertion done on _____

Post-placental / <48 hours postpartum / intracaesarion)

To come for follow up at 6 weeks or anytime, if there is any problem at Room No. _____

Timings _____

Emergency Contact Number _____

ETHICS & EVIDENCE

11

AMOGS DR. ANJANEYULU MEMORIAL ORATION

Childbirth - A Success Story

Author :

Prof. Dr. Kanan Yelikar

Dean, GMCH, Aurangabad (MS)
President AMOGS
Vice President - FOGSI (2007)
Chairperson clinical research FOGSI (2004- 2008)
Dr. B. C. Roy Awardee

Childbirth a success story

Child birth is an enigma since ages. It is an event of immense importance especially to human race as it is concerned with the reproduction of generation next. Since years researchers are working on understanding the different aspects of childbirth for example the physiology of childbirth ,the events ,the process ,the duration and the outcome of the event.The effect on the mother and the child.However the natural events are so well organised and so well-turned that many times it becomes difficult to explain the whole process. However since the childbirth is a laborious and exerting procedure to the mother it is also termed as LABOUR.

Delivering vaginally is a common event and hence also called as normal labour.The advent of caesarean section in the year 1506 resulted in relieving those mothers in whom labour was obstructed due to many reasons.Gradually the spectrum of caesarean section kept on widening to an extent that the expected rate of 15% rose up to as high as 50 %.

The purpose why I chose this topic for the oration was, the 32 years of long experience in the delivery ward taught me many lessons in life. And more and more I was convinced that caesarean section should be judiciously used and reserved only for those cases where indicated.

Are we losing our patience of long observations and labour monitoring in the labour room or are we afraid of the litigations? This has become the need of the hour that we go back to our basics and train our postgraduates in VD (vaginal delivery) and start having our own labour room protocols .This should definitely encourage all of us to have more and more vaginal deliveries thereby reducing the toll of caesarean section.

The oration is discussed under the following heads Normal labour, Use of Partogram, CPD and abnormal labour patterns, Second stage difficulties ,Induction of labour when why and how ,Cesarean section, Promoting respectful maternity, Conclusion .

Parturition consists of uterine contractions and cervical dilatation. Normal labour is spontaneous in onset and at term, vertex presentation, without undue prolongation, natural termination with minimal aids, without having any complications affecting the health of the mother and/or baby.Four factors important in determining a woman's satisfaction with her childbirth experience are personal expectations, the amount of support she receives, the quality of the caregiver-patient relationship, and her involvement in decision-making.

First stage of labour should be managed with utmost care and monitoring of vitals and maintaining the hydration of the mother. Management of labour pain by pharmacologic and nonpharmacologic.is a major goal of intrapartum care. Second stage of labour consists of positioning, bearing down and spontaneous birth of head. Episiotomy is reserved for deliveries with a high risk of severe perineal laceration, significant soft tissue dystocia, or need to facilitate delivery of a possibly compromised fetus.

Progress of labour is monitored with the use of partogram which consists of Friedman's curve(1939). It consists of mainly Alert Line and Action Line.Any deviation from the normal should be taken cognizance and acted upon .The advantages of partogram are immense and helps one to record the labour pattern graphically and have reproducible documentation. Abnormal labour patterns like prolonged and obstructed labour can be picked up early.Labour is said to prolonged when the duration of labour crosses the normal Partograph .The commonest causes are cephalo–pelvic disproportion and abnormal uterine action. The applicability of the Friedman curve and its established norms to contemporary obstetric practice was challenged in the 21st century. This change has been attributed to changes in patient characteristics (eg, higher mean body mass index), anaesthesia practices (more use of neuraxial anesthesia), and obstetric practices over the past half-century. But still the same Partograph is followed andpromotion of safe deliveries in healthcare facilities with monitoring with Partograph is the most effective weapon to prevent labour complications.

Abnormal progress of spontaneously initiated labour may be related to uterine factors, fetal factors, the bony pelvis, or a combination of these factors. Women with cervical dilation <6 cm are considered to be in latent phase.

A disproportion in the size of the fetus relative to the maternal pelvis can result in failure to progress in the second stage and has been termed cephalopelvic disproportion (CPD). This is usually due to fetal malposition (eg, extended or asynclitic fetal head, occiput posterior or transverse position or malpresentation (mentum posterior, brow) rather than a true disparity between fetal size and maternal pelvic dimensions. However, true CPD may occur if the fetus has a large surface anomaly (eg, teratoma, conjoined twin), the maternal pelvic bone is very small or deformed (eg, after pelvic trauma), or the fetus is extremely large .Obstructed labour is said when the labour comes to a standstill inspite of good uterine contractions. The perinatal and maternal outcome is adverse in obstructed labour.Maternal mortality due to obstructed labour is a social tragedy.

Induction of labor is an intervention designed to artificially initiate uterine contractions leading to progressive dilatation and effacement of the cervix andbirth of the baby, usually beyond 28weeks. It is indicated when continuation of pregnancy is detrimental to health of the mother or baby. Induction of labour should be performed only when there is a clear medical indication for it and the expected benefits outweigh its potential harms. It should be performed with caution since the procedure carries the risk of uterine hyperstimulation and rupture and fetal distress. Wherever induction of labour is carried out, facilities should be available for assessing maternal and fetal well-being. Women receiving oxytocin, misoprostol or other prostaglandins should never be left unattended. Failed induction of labour does not necessarily indicate caesarean section. Wherever possible, it should be carried out in facilities where caesarean section can be performed. Apart from Oxytocin & Prostaglandins, Tab.

Mifepristone is safe & attractive option for pre-induction cervical ripening.Induction of labor overall enhances normal delivery rate and decreases Casearean section rate.

Respectful maternity care is a modern concept proposed by White Ribbon Alliance and WHO. Respectful maternity care is Tackling Disrespect& Abuse During Facility-Based Childbirth. Respectful maternity care is thus universal right of childbearing mother.Disrespect and abuse includes Physical Abuse, Non-Dignified Care, Non-Consented Care, Non-Confidential Care, Discrimination, Abandonmentor Withholding of Care and Detention in Facilities. Studies suggest that fear of disrespect and abuse may sometimes be a more powerful deterrent to the use of skilled birth care than geographic and financial obstacles. Disrespect and abuse during facility-based childbirth thus are having a negative impact on skilled birth care utilization. Respectful maternity care encompasses aspects like being free from harm and ill treatment, being informed about all the procedures and choices available, to maintain privacy and confidentiality, to maintain dignity and respect, equality and freedom from discrimination, liberty, automomy, self determination and freedom from coercion. In the absence of maternal or neonatal complications, delayed cord clamping and drying of baby is recommended to minimize heat loss . Skin-to-skin contact may benefit early mother-infant attachment and breastfeeding outcomes.

All in all we need to understand that every effort should be made to provide C section to woman in need rather than striving to achieve specific rate. We can achieve this goal by providing aggressive antenatal care, intensive intrapartum foetal and maternal monitoring and choosing appropriate intervention for appropriate patients at appropriate time!

The management Committee is pleased to Award the Dr. B. C. Roy National Award for 2009 to Dr. Kanan A. Yelikar in recognition of her seruices in the field of Eminent Medical Teacher.

Medical Council of India
DR. B.C. ROY NATIONAL AWARD

12

HOW DO I IMPROVE MY IUI SUCCESS ?

Evidence Based Strategies

Author :

Dr. Aditya Khurd

DNB, Fellowship in Reproductive Medicine, IVF & ICSI, (Bengaluru)
Fellowship in Minimal Access Surgery (Kochi)

Dr. Sanjeev Khurd

M.D. FICOG, Dipl. in Laparoscopy Surgery (Germany)

Author :

Dr. Vandana Khurd

M.S Obst & Gyn, (Mumbai)

Dr. Sadhana Khurd

Dipl. In Vaginosonography (Germany) & IVF – ICSI Certification (Singapore)

VITAL FACTS ABOUT PREGNANCY SUCCESS

- A Normal Fertile Couple has 15 – 25 % per Cycle Chance to Conceive a Pregnancy
- A Normal Fertile Couple, therefore, takes Average of 5 – 6 months to Conceive a Pregnancy
- An Infertile Couple has Reduced Chance i.e : 0 – 1 – 3 % per Cycle Chance to Conceive and therefore, may take a Longer Time to Pregnancy
- IUI Increases the Chance to Conceive to 10 – 15 – 25 % per Cycle
- IVF Increases the Chance to Conceive to 30 – 40 – 50 % per Cycle

INTRA UTERINE INSEMINATION (IUI)

IUI is an ARTIFICIAL INSEMINATION to Assist Reproduction and Enhance Pregnancy Rate. It is an Effective, Simple, Safe & Patient friendly Technology which can be repeatedly offered in a Clinical setting.

IUI is aimed at placing the bolus of CONCENTRATED, MORPHOLOGICALLY, NORMAL, MOTILE, CAPACITATED SPERMS, resuspended in a small volume of protein - supplemented medium, free from Seminal Plasma, Leukocytes, Bacteria and Antibodies from Sperm surface, into the UTERINE CAVITY, through the CERVIX as CLOSE to the OOCYTE as possible, at the anticipated time of Ovulation, bypassing the Vaginal acidity **and Cervical Mucus Barrier to** INCREASE the CHANCE of FERTILIZATION.

10 FACTORS AFFECTING IUI RESULTS

1) WOMAN'S AGE - Single Most Important Fertility Factor

2)	DURATION OF INFERTILITY	
3)	CAUSE OF INFERTILITY	
4)	ASSOCIATED ANTI-FERTILITY FACTORS	- Obesity, Smoking
5)	NUMBER of FOLLICLES at the TIME of IUI	- Quality of Ovarian Stimulation
6)	INHOUSE IUI LABORATORY	- SEMEN QUALITY & SEMEN PREPARATION METHODS
7)	IUI TECHNIC	
8)	ENDOMETRIAL RECEPTIVITY	
9)	NUMBER OF IUI CYCLES	- Pregnancy Success is Always Cumulative
10)	ADMINISTRATIVE	- 'Cold - Chain' Maintenance for Gonadotropins, Procedural Delays

TO MAXIMIZE IUI SUCCESS

1) SELECT THE RIGHT PATIENTS

YOUNGER WOMEN	**< 35 years**
SHORTER DURATION of INFERTILITY	**< 3 years**

2) SELECT THE RIGHT INFERTILITY INDICATIONS -- "IUI FOR ALL" EXCEPT -

Severe Tubal Factor	}	
Severe Endometrial Factor	}	**HAVE**
Severe Male Factor	}	**POOR RESULTS at IUI**
Severe Endometriosis	}	

- **IUI RESULTS - Better in Cervical Factor, Anovulation & Unexplained Infertility** than Mild Endometriosis, Mild Tubal Factor & Mild Male Factor.

3) CORRECT THE ASSOCIATED ANTI - FERTILITY FACTORS

Obesity, Smoking, Stress

- 5% Weight Loss results in 60 % Ovulation Rate
- All Smoking Women have upto 50% Decrease in Chance of Pregnancy
- Smoking has a Negative impact on Spermatogenesis

4) COMBINE IUI + SUPEROVULATION with GONADOTROPINS (HMG / FSH + HCG)

To Stimulate growth of **2 – 3 FOLLICLES**

- **Ovarian Stimulation** Combined with **IUI** gives Superior Pregnancy Rate than either used Alone *(Level of Evidence 1a)*
- **Superovulation with Gonadotropins** (75 / 150 IU) gives Superior Pregnancy Rate as compared to Stimulation with **Clomiphene** (50 – 150 mg Daily) *(Level of Evidence 1a)*

- **All Gonadotropin** Preparations
  viz : **Urinary** (Traditional, Purified, Highly Purified) and
  Recombinant have **Same** Pregnancy Success Rate
  & **Same** Rate of Ovarian Hyperstimulation Syndrome
  (Level of Evidence 1a)

- **Highly Purified (HP) & Recombinant (Rec) Gonadotropins** have
  - Batch to Batch Consistency, therefore, More Predictable in Performance
  - Subcutaneous Self Administration is possible by Patient
  - 3 x to 5 x Expensive

- **Clomiphene** Addition Decreases **Gonadotropin** Dose & Cost of Stimulation

5) SUPPRESS PREMATURE "LH RISE" by Inj. GnRH Antagonist
(Inj. GnRH Agonist Not Preferred)

in **Gonadotropin Stimulated Multi - Follicular**
But Not Mono – Follicular IUI Cycles

- 15% - 30% of Gonadotropin Stimulated Cycles have Premature "LH RISE"

6) HCG (5000 IU) is the Preferred as Ovulation Trigger over GnRH Agonist

- GnRH Agonist as an Ovulation Trigger is recommended Only when OHSS is threatening
- A LUTEAL PHASE SUPPORT is a MUST with GnRh Agonist Trigger

7) TIME IUI at PROPER TIME Follicle Size - 18 – 23mm Diameter
Endometrium - 8 – 14 mm Thickness & TRILAMINAR Appearance
- Good Endometrial Flow on Doppler

- 'Broad - Window' of **32 - 46 Hours After HCG to TIME IUI**

8) INHOUSE IUI LABORATORY is Preferred
EMPLOY APPROPRIATE SEMEN PREPARATION METHOD

CONVENTIONAL **"SWIM - UP" &**

"SPERM – WASH" **"SWIM - DOWN"** (Density Gradient Separation)

For Normal Semen Only For Both Normal & Abnormal Semen

- Both offer Better Pregnancy Chances than Conventional "Sperm Wash"
- Both have Similar Efficacy at Pregnancy Success

(Level of Evidence 1a)

Sperms with Normal Morphology	> 4%	Consider IUI
	< 4%	Consider ICSI
POST - WASH		
Total Motile Sperm Count	> 2 - 5 Million / ml	Consider IUI
(Count x Volume x % Motility)	< 2 Million / ml	Consider ICSI

9) **IUI TECHNIC** should be SMOOTH & ATRAUMATIC

- Atraumatic IUI Catheter
- **0.3 – 0.5 ml** of Prepared Semen should be introduced
  Slowly over **10 - 30** seconds
- BED REST - No data to indicate that it matters. Customary to have the Patient in Supine position for approximately 10 – 15 Minutes after IUI

10) **SINGLE IUI / DOUBLE IUI - Both have Same Success** *(Level of Evidence 1a)*

11) **LUTEAL PHASE SUPPORT is MUST** when **2 or MORE FOLLICLES** develop
& when Inj. GnRh Agonist is used to Trigger Ovulation

- Micronized Natural Progesterone (100 mg BD Vaginal) OR
- Dydrogesterone (10 mg BD Oral)

START - 3 Days after Confirmed Ovulation x 12 Days

12) **PREGNANCY SUCCESS IS ALWAYS CUMULATIVE**

- **MINIMUM NUMBER of IUI CYCLES : 3**
- **MAXIMUM NUMBER of IUI CYCLES : 4 - 9** *(Level of Evidence 2 and 3)*
  - **IUI** Success Plateaus / Declines After **4** Cycles
  - Women with Ovulatory Dysfunction may have Extended Number of IUI Cycles - **upto 9**

13) **MAINTAIN "COLD - CHAIN" for Gonadotropins**

AVOID ADMINISTRATIVE DELAYS

- **Semen Processing** within 1 Hour of Man producing the Semen
- **IUI** within 1½ Hours of **Semen Collection**

14) **EMPLOY LAPAROSCOPIC "OVARIAN DRILLING" for PCOS** women **ONLY** &
ONLY After Medical Management Fails to achieve a Pregnancy

Superovulation + IUI After "Ovarian Drilling" gives

- **60 – 75%** Cumulative Pregnancy Rate Over a period of 6-12 Months
- Shortens the 'Time to Pregnancy'

15) **USE DONOR SPERM EXCLUSIVELY FROM "SEMEN BANK"**
Sperms are Cryopreserved & Quarantined for 6 Months and Released Only After the Donor tests Negative for HIV

- Success achieved with IUI using Cryopreserved Donor Sperms are Comparable, regardless whether the Sperms are Prepared Before Freezingor After Thawing

ESHRE Clinical Multi - Centric Trial	
No Treatment	3%
IUI	7%
Clomiphene Citrate	9%
Clomiphene Citrate + IUI	11%
Gonadotropins Alone	14%
Gonadotrapins + IUI	27.4%
IVF - ET	32.7%

How much Success should I Expect from IUI Treatment Cycles?

IUI RESULTS European Data - from 22 countries

134,261 Cycles of Husband IUI

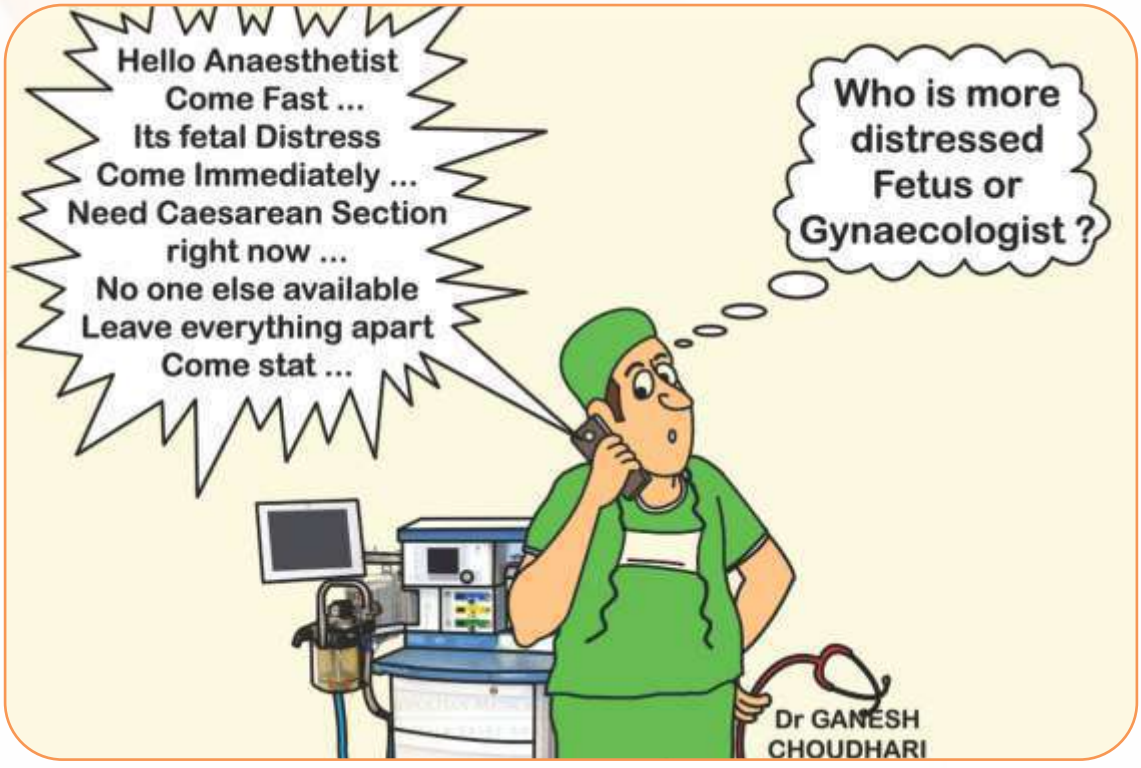
24,339 Cycles of Donor IUI in 1 year

Husband IUI ------- Live Birth Rate - 8.5% per Cycle

Donor IUI ------- Live Birth Rate - 12.4% per Cycle

Human Reprod Aug 2010, Mouzon (ESHRE Data 2006)

Fun Corner



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CARE AT THE EDGE OF VIABILITY IN INDIA
(Medical and Ethical issues)

Author :
Dr. Alka Kuthe
Consultant Gynecologist, Amravati
LLM (Criminology) & Human Rights Education
E mail: alkakuthe@yahoo.com

Introduction:

Medicine is the dynamic science. There are many positive and negative changes in medical sciences in last few decades. India is known to be land of low birth weight (Preterm as well as small for gestation age) babies. Decision-making for extremely immature preterm infants at the margins of viability is ethically, legally, professionally and emotionally complicated. Both humanitarian & human right issues need to be balanced with the proper application of physician's brain & mind. Beneficence and non-malfeasance are the first articulated ethical precepts that set the physician-patient framework.

The problems related to prematurity:

The outcome (morbidity or mortality) in a child born prematurely or born with congenital anomalies is challenge not only to the individual / family but also to the society / nation. The differently enabled child may need special care in most of the situation and hence every one of us has a role to play in management of such children as far as their future life is concerned. It is recommended that all hospitals that provide high-risk obstetric and neonatal intensive care should develop informative, rational, supportive, clear & practical medical staff guidelines to assist in the counseling of women delivering extremely premature infants & implement them successfully. These include decision about instituting, withholding or withdrawing life support therapy etc.

The Neuro-developmental outcome:

One of the main problems after the survival of a preterm baby is impaired neuro-developmental outcome. These children may have impaired physical, social, behavioral, emotional and cognitive

functions or development. The resulting spastic, autistic and a child with compromised quality of life poses many obstacles to the optimal care and management of the future generation of any nation. Everybody knows that a child who has survived from an acute episode of severe birth asphyxia or a child who has developed cerebral palsy because of any reason are the potential risks as far as prognosis is concerned. Such children may land in **"Permanent Vegetative state", "No chance"** situation or even **"No purpose"** situation in their future life. (1) In case of neonate delivered below 23 weeks gestational age not responding at birth or is born anencephalic or with similar birth defect known to be incompatible with life, no resuscitation measures are started as the situation is labeled as 'No purpose' situation as there is no doubt beyond reasonable limit the prospect of his/her survival will be **"impossibly poor".**

The issues related to the cost:

As we have already seen that India is a developing country with restricted and mis-utilized or misappropriated resources. The societal cost of saving the preterm babies (who will in future also need lots of infrastructure for basic support in maintaining a dignified quality life) will be enormous. This is a common problem encountered in hospitals. Initially due to emotional upsurge and social pressures, many persons would consent for ventilation care or support. Butwhen the response is not as per expectations, distress sets in. Family members find themselves unable to take decisions on discontinuing life support and at the same time unable to bear the cost of treatment.

The issues related to research:

As discussed earlier, we are in the era of technical advances, where we are trying to overcome the nature or the supernatural power that created the life on this earth. The advances in Gene therapy, Cloning, Stem cells researches are giving the impression that the time is not far away when a scientist will take the place of nature or god. The question is, Are we ethically or morally correct? Is there need to discuss, rethink and introspect ourselves?

Role of multidisciplinary approach:

When we are discussing the legal and ethical issues related to care at the edge of viability, almost everyone has a definite role to play. **The multidisciplinary approach** in such cases should involve team efforts in decision making. The team shall consist of gynecologists, pediatricians, legal or medico-legal expert, social worker, representative from judiciary, government authority and possibly policy makers. The issues will involve the fundamental right to life and what to do if this right is at stake. Right not to be born can also be legal right if the suffering itself is violation of Article 21; courts till now are unable to decide whether defective life is worse than non-existence? There is a need of following certain standard for prenatal consultation incorporating parental decision-making preferences, a communication process allowing decisional deliberations.

The issue of Euthanasia:

The euthanasia has not been accepted in India either by policy makers or judiciary. There have been definitive decisions in the court of law which neither recommends **"passive euthanasia"** nor **"active**

euthanasia". So, one can't accept the decision to terminate the life even if there are all the indications that the baby is going to have compromised life in the future. Life support is continued as long as there is reasonable hope for survival and the infant's burden of intensive care is acceptable. If, on the other hand, the health care team and the parents have recognized that in the light of a very poor prognosis the burden of the currently used therapies has become disproportionate, intensive care measures are no longer justified and other aspects of care (e.g., relief of pain and suffering) are the new priorities (i.e., redirection of care). If a decision is made to withhold or withdraw life-sustaining therapies, the health care team should focus on comfort care and support for the parents.(2)

Do Not Resuscitate:

In medical practice, occasionally, reality brings us to the shore of ethical dilemmas. Although a doctor is bound by the ancient Hippocratic oaths to heal the infirm, treating a person sometimes may appear more harmful than not treating them in certain situations. (3) One has to introspect oneself while continuing intensive resuscitation measures in a child having multiple congenital malformations which are not compatible as far as long term morbidity & mortality is concerned. As more reports emerge of improved mortality and morbidity rates in infants born at the edge of viability, there may be need to reassess protocols and recommendations that encourage only comfort care for extremely poor survival in infants who are born at less than 24 weeks' gestation.

The rights of the fetus:

It's not only the right of the preterm babies; we are now in an era, where the discussions have started about the rights of the fetus. Many a times the prematurity may be iatrogenic. The pregnancy might have been terminated or the babies might be delivered for life saving medical indications (both for mother or the child in- utero). In today's era of consumerism, these risks cannot be just ignored. There can be situations in our day to day practice where fetal interests precede over maternal interests in order to avoid prematurity & the consequences arising there from, as well as the calculated risks of fetal anomalies if the pregnancy is allowed to continue. In, one case, **Dr. Datar, Mr. X and Mrs. X v. Union of India,** a 24 weeks pregnant patient was forced to carry a pregnancy to term that could end in fetal demise or result in the birth of a child with a seriously compromised quality of life. Since the pregnancy was beyond the legal limit, as per the Medical Termination of Pregnancy Act, 1971 the Bombay High Court denied the request made by patient, her husband, and Dr. Datar, failing to recognize the severe mental anguish suffered by patient. The fetal right of being born alive has to be matched with right of being born with mentally & physically healthy life.

Delivered too soon:

One of the reasons for delivered too soon is induction of labor. Therefore before the induction, one must be sure about the proper indications, the contraindication, assess Bishop Score & ensure gestational age & the pulmonary maturity of the fetus. Otherwise apart from maternal complications there is a chance of iatrogenic prematurity which can prove detrimental to the life of newborn. Almost all NICUs have struggled with decisions about newborns at the threshold of viability and the question of **"how small is too small".** (4)

The Role of Judiciary:

The Supreme Court in, **ARUNA SHANBAUG v. UNION OF INDIA, WP (CRL) 115/ 2009** has commented that the issue is, "Is not keeping the women in this persistent vegetative state by force feeding violative of her right to live with dignity guaranteed by Article 21 (Right to life) of the constitution?" (5) The euthanasia is not accepted in our country. The Indian Medical Council (Professional Conduct, and Ethics) Regulations with regard to professional conduct, etiquette and ethics terms the practice of euthanasia as misconduct. In the rare circumstances where any significant disagreement about best interests cannot be resolved, legal advice should be sought on whether it is necessary to apply to the court for a ruling.

What to do: (6)

1. Counseling pregnant women/ parents regarding family choices, and neonatal outcomes.
2. Unless for a selective patient e.g. who has history of precipitate labor, the social or elective induction should not be accepted.
3. The fetal interest should get priority while deciding the termination unless continuation is dangerous to the life of mother or the fetus.
4. Prospective parents of extremely low birth weight infants should be advised of this substantial risk, to facilitate decision-making in the delivery room.
5. The efforts should focus on improving long-term outcome for survivors and on developing high quality palliative care for non-survivors
6. Develop a written set of guidelines.
7. We should evolve a rational process and sound mechanism to make correct ethical decisions.
8. In case of decisions that have to be taken in haste, document everything later. Be objective and truthful.
9. Appropriate counseling by more than one consultant helps family members in taking this decision.

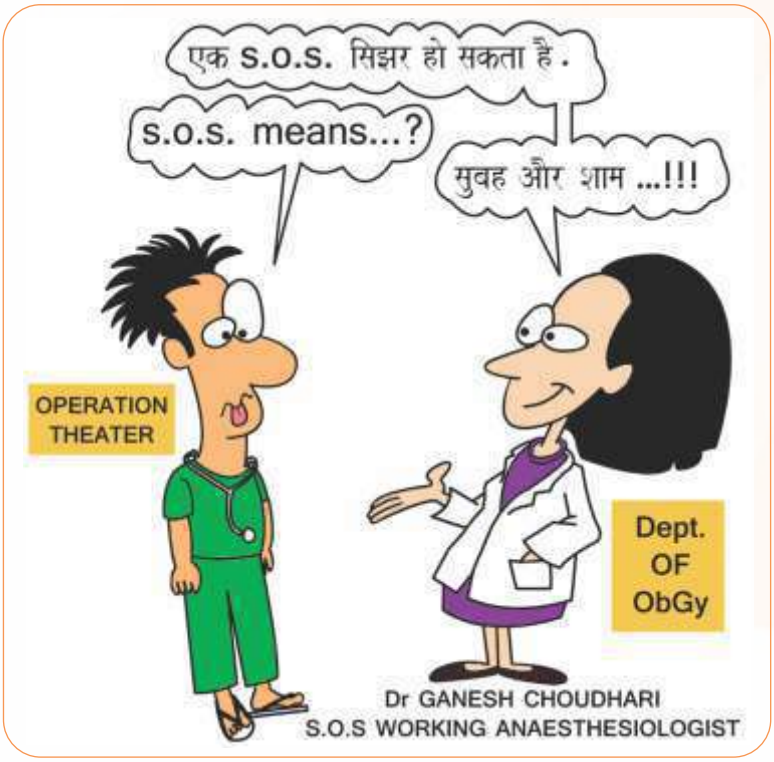
Conclusion:

Despite ongoing progress in peri-natal care over the past decade, mortality rates of infants born before 24 completed weeks of gestation have remained high, and the majority of survivors have at least some degree of neuro-sensory impairment. With increasing knowledge of long-term follow-up data, quality of life aspects have become more important in treatment decisions for infants born at the limit of viability. Perinatal care of pregnant women at high risk for preterm infants born at the limit of viability (22-26 completed weeks of gestation) requires a multidisciplinary approach by an experienced perinatal team. Relevant moral considerations include the primacy of the newborn's best interests, parental autonomy, physicians' duties of beneficence and non-maleficence, and distributive justice. Sometimes there can be ethical dilemma faced by doctors who are unable to act in the best interest of their patients because their hands are tied by the law. Thus it is clear that **care at the edge of viability is a challenging and responsible task for the perinatologists & the hospital staff** attracting the attention of the concerned. The ethical & medical aspects need to be balanced in the context of benefit burden ratio. The narrow principle of 'best interest' of the child should be replaced by global beneficence to the family, society and state.

Reference:

1. Bhattacharya A , Mishra S. DNR, Euthanasia and Life Support Systems; In: Tiwari S, Baldwa M, Tiwari M, Kuthe Alka editors; Text Book on medico-legal issues related to various medical specialties: 1st edition, Jaypee brothers medical Publishers, New Delhi 2012; 179-185
2. RCPCH, UK. Withholding and Withdrawing Life Prolonging Treatments: Good Practice in Decision-making. May 2004
3. Sanjib Das Adhikary, R Raviraj, Do Not Resuscitate orders. Indian J Med Ethics. 2006 Jul-Sep;3(3)
4. Birla M. Medicolegal and ethical issues in new born care; In: Tiwari S, Baldwa M, Tiwari M, Kuthe Alka editors; Text Book on medico-legal issues related to various medical specialties: 1st edition, Jaypee brothers medical Publishers, New Delhi 2012; 171-173
5. Mahapatra D. SC admits women's plea to end her life. The Times of India, 2009; 18th Dec. Nagpur page 1 (Col. 7-8).
6. Mani RK, Amin P, Chawla R, Divatia JV, Kapadia F, Khilnani P, et al. Limiting life-prolonging interventions and providing palliative care towards the end of life in Indian intensive care units. Indian J Crit Care Med 2005; 9: 96-107.

Fun Corner



CONSENSUS

14

MEDICOLEGAL ISSUES CONSENSUS STATEMENT

Author :
Dr Manish Machave
Org Secretary, AMOGS, 2018, Pune.
National coordinator, Ethics and Medicolegal Committee, FOGSI, 2017-19

Introduction

Medicine and Law are unique and independent disciplines. Both represent the zenith as well as sophistication of human civilization. However, as and when the domains cross paths, usually, a chaos unfolds. This is largely because the knowledge of law is not as widespread as it ought to be among the practitioners of medicine.Doctor patient relationship is now potentially an adversarial relationship with each patient seen as a potential plaintiff and each question as a possible source of angst. There has to be a uniform code of conduct in potential cases where medicine may cross ways with law.This article aims at establishing a certain amount of uniformity in such situations in the light of landmark judgements and the law of the land.These are extensively discussed at the MEDICOLEGAL WORKSHOP Of AMOGS 2018 by various experts in the field of medicine and law. Although there remains a constraint of detail information, we hereby put to pen the most important salient features.

Consensus Discussion - 1

DEATH IN A HEALTHCARE INSTITUTION - Medical and Legal Approach

Death in a health care facility is usually a cause of alarm as well as fear. Especially, if the death is that of a young and otherwise healthy patient. Dealing with death impartially, objectively and rationally is one of the biggest challenges of a physician.

Intimating the Police

In the event that a physician faces death of a patient, whether or OT or in any other manner, the Police have to be informed in order to avoid penal consequences. The following cases are some examples where the Police have to be informed -

(i) cases of suspected homicide,

(ii) cases of suicidal deaths,

(iii) unknown, unconscious patient,

(iv) death on operation table

(v) suspected unnatural death,

(vi) sudden, unexpected, violent and unexplained death,

(vii) instant death after treatment or reaction of medicine,

(viii) married lady dying within seven years of marriage due to any reason.

Doctor's liability

Doctors have no immunity against arrest (as any other citizen of India) for the various criminal acts as per the provisions of IPC or CPC of India. Illegal organ trading, unlawful sex determination etc. are non-bailable offenses. But the question is whether a doctor be arrested for:

(*a*) alleged medical negligence during day to day care of a patient,

(*b*) unexplained hospital deaths like SIDS etc.,

(*c*) postoperative complication or failure of operation;

(*d*) not attending or refusing a patient (who was not already under his care) who becomes serious or dies and

(*f*) not attending a case of roadside accident.

Criminal burden and doctors

Section 304 A – Upon the occurring of an unnatural death, or death on operating table, the most likely and only section that a doctor may be charged under is section 304A. This section pertains to causing death of a person by any rash or negligent act not amounting to culpable homicide. It is punishable by imprisonment of either description for a term which may extend to two years, or with fine, or with both.

What is pertinent to note is the fact that this section is cognizable and bailable, which means that magistrate as well as the Police can take cognizance of such a death. The Police shall begin investigation. What is further more important to note is that since the section is bailable, bail is granted as a matter of right.

Guidelines for arresting doctors - Jacob Mathews v/s State of Punjab – The Supreme Court Of India

- A private complaint may not be entertained unless the complainant has produced prima facie evidence before the Court in the form of a credible opinion given by another competent doctor to support the charge of rashness or negligence on the part of the accused doctor.
- The investigating officer should, before proceeding against the doctor accused of rash or negligent act or omission, obtain an independent and competent medical opinion preferably from a doctor in government service qualified in that branch of medical practice who can normally be expected to give an impartial and unbiased opinion applying Bolam's test (A man need not possess the highest expert skill; it is well established law that it is sufficient if he exercises the ordinary skill of an ordinarily competent man exercising that particular art) to the facts collected in the investigation.
- A doctor accused of rashness or negligence, may not be arrested in a routine manner (simply because a charge has been levelled against him). Unless his arrest is necessary for furthering the investigation or for collecting evidence or unless the investigation officer feels satisfied that the doctor proceeded against would not make himself available to face the prosecution unless arrested, the arrest may be withheld.

Do's and Don't's in case of Table Deaths

- Cases of accidental deaths, injuries, poisoning or unnatural events under suspicious circumstances must be reported to the police whenever such cases are brought to the notice of Casualty, OPD or dispensaries for treatment (FORM II).
- Police should be immediately informed after patient is declared "Dead on Arrival" in casualty or dispensary, so that, an inquest can be arranged.
- A patient may suddenly die after admission to the Hospital. It is the duty of the Medical officer to inform such a case of death to the Police, immediately. The intimation to be given to the Police should be to the effect, that the patient died suddenly and the cause of death is not known. The date and time of the intimation must also invariably be recorded on the case papers.
- There may be certain occasions when cause of death of a patient attending the hospital, is not clearly mentioned in the report and there may also be suspicious circumstance. It is customary in such case to inform the Police so that, they can arrange for the necessary inquest and give instructions for postmortem examination.
- Deaths in the Operation Theatre during Medical Termination of Pregnancy, delivery, following sterilization or any other surgical procedure should also be reported to Police.
- The Police should be informed about drug or alcohol related death (including deaths of drug addicts).
- Whenever a medico-legal case is admitted in the ward, the concerned consultant on call and the head of the unit should be informed, about such admission.
- All burns cases should be registered as medico-legal. The Medical Officers should record on the case paper, the statement of the woman (if she is married) about the circumstances under which she had sustained burns. The Police should be informed to arrange for a dying declaration in severe cases.
- Discharge against medical advice (DAMA) - When the patient's condition does not permit the discharge but he is not willing for continuing the indoor stay, discharge against medical advice should be issued. The consequence of this could be a major complication including death hence adequate precaution should be taken. The attending doctor should take patient's signature on the given form along with a witness. The witness should be patient's relative/ friend. Also it is encouraged that patient writes in his own handwriting in Hindi / English on the case file and he and his relatives sign the statement. Date and time of discharge should be mentioned. This statement should mention the patients condition at that moment and their insistence on discharge in spite of all the possibilities been explained to them.
- No consent of patient relatives/friends/attendant is required for conducting a postmortem in case of any unnatural death. There may be requests or at times even pressure, not to inform the police but obliging to any such request would amount to illegality. In case of any unnatural death, the decision to inform the police lies on the doctor/hospitals/nursing home.
- The request for autopsy or postmortem must be initiated by the physician and not from the deceased relatives or their legal heir. Physicians can only treat and cannot decide the cause of injury as natural and let go the process of postmortem. Do inform the police if you have any suspicion.
- Take the help of Medico Legal consultants, Police and other trusted advisors in dealing with death and mobs in the event that you anticipate vandalism.

Consensus Discussion - 2
Sonography Machine Sealed - What Next ???

First thing which every medical professional needs to understand is, that you need to treat an action by the Appropriate Authority under the PCPNDT Act of suspension or cancellation of registration or search and seizure as a strong legal action taken against you. And that such action by the Appropriate Authority has to be dealt with in a precise and in a timely manner. Legal sophistication and time are of utmost importance and essence respectively.

What happens once materials are seized from my Clinic?

A copy of each document needs to be handed over to the owner of the premises or the person from whose custody the material has been seized and acknowledgement for the same be obtained. If no person acknowledges the custody of the premises, the list may be sent by registered post or under acknowledgement.

Can one appeal against the decision of AA? The answer is Yes,

- Anybody not satisfied with the decision of the AA at sub-district level may appeal to the AA at district level within 30 days of receiving the order.
- Anybody not satisfied with the decision of the AA at district level may appeal to SAA/UTAA within 30 days of receiving the order.
- The AAs at district/State/UT level have the power to condone the delay in filing of the appeal, if convinced by the plea of the appealing party. However, this is a discretionary power and one cannot expect to get the delay condoned as a matter of right.
- The good part is that authority appealed to must give its decision within 60 days.

Consensus Discussion - 3
Defences for Allegation of Negligence

For health care professionals and hospitals, in the event of a medical negligence law suit, defense becomes critical. Not only is it going to safeguard the particular health care professional from liability, but it will also help preventing in setting a precedents of consumer complaints against Doctors. It is advisable for doctors to be aware of the case laws, legal practices / principles laid down by the law as well as the courts.

Firstly, in order to prove a case of medical negligence against a Doctor, the patient's side has to prove the following -

1. Legal Duty to care
2. Breach of the duty by the Doctor
3. The Breach resulted in the injury.

Therefore, while building the strategy of the defence on behalf of the doctor, any of the three above have to be countered. Legal duty to care is nearly impossible to deny unless the other side has made a mistake and sued the wrong doctor

Breach of the duty by the doctor is usually countered by showing how the standard of care provided by the doctor was best, given the situation. Furthermore, this defense is strengthened by putting forth the competence of the doctor as well.

The breach resulted in the injury can be countered by bringing forth such facts which make it clear that

the patient's injury could have resulted due to any other factor as well. Or that somehow, the patient himself / herself contributed to the injury.

The following are some pointers pertaining to defense that will be beneficial for doctors –

- Firstly, the importance of medico-legal consultants and lawyers cannot be emphasized more. In the event of a case, it is critical to take professional advice and follow it.
- The notice of a consumer dispute should never be refused or rejected when it is attempted to be delivered by postal service. Refusal to accept the notice is considered deemed acceptance in law.
- The contentions advanced or the pleas made should be made at the first instance. This means that at the stage of responding to a legal notice, the help of professionals ought to be taken and the complete defense should be put forth.
- In the event that the medical treatment provided is completely free of charge, the patient doesn't fall under the category of a "consumer" as defined by the law and therefore such a procedure cannot be resolved by the Consumer Court. This defense challenges the jurisdiction of the Consumer court to settle the dispute. It should be noted that such a defense will not prevent the aggrieved patient from pursuing other legal remedies.
- The defense should be well supported with the doctor's credentials qualifications, training, experience, awards, expertise, etc along with attendance at various conferences, workshops, etc.
- Documentary support pertaining to the facilities at the hospitals of infrastructure, back-up support, etc.
- Document Complainant's own contributory negligence. Often the patient's do not follow the medical advice fully, or delay the treatments and thereby contribute to the injury themselves. This can aid the defense to a large extent.
- In the event that there are inconsistencies between the notices sent, letters / emails of complaints and the actual case filed by the patient, the same should be specifically pointed out at the first instance.
- Provide documentary evidence pertaining to the difficulty or the complex technical nature of the medical procedure conducted and the inherent risks in them.
- Providing evidence, documentary or otherwise of the circumstances of the case, i.e. emergency, lack of facilities, (in rural areas as rule of locality applies),lack of knowledge of the patient's history, etc.
- Provide evidence (documentary or otherwise) of standard of care, precedents, SOP's, etc of the Doctor or the Hospital.
- It is advisable to demonstrate that reasonable knowledge, skill and care (average that is expected of any professional skilled in the art) was exercised. Rely on standard medical textbooks and quote the same with attested photocopies.
- Produce evidence that the chain of causation leading to the injury was broken (novusactusinterveniens). Or provide evidence that many other reasons outside the control of the doctor contributed to the damage.
- Ensure to appeal within the statutory limit in the event that an order is passed against you.

Consensus Discussion - 4
ON WAR FRONT - Vandalism against Doctor and Healthcare Institution

THE BACKGROUND-THE MAHARASHTRA MEDICARE SERVICE PERSONS AND MEDICARE SERVICE INSTITUTIONS (PREVENTION OF VIOLENCE AND DAMAGE OR LOSS OF PROPERTY), ACT 2010

Object

Prevention of violence

Loss or damage of property

Prevention of unrest

Hindrance of such services

Act applicable to

Medicare service institution-GOVT/ PRIVATE/ MOBILE UNITS

Medicare service person-RMP/RN/MEDICAL STUDENT/NURSING STUDENT/PARAMEDICAL STAFF

Penalty

Commits/attempts to commit/abets/ incites

Imprisonment- 3ys and Fine-Rs 50,000/-

Type of offence

COGNIZABLE-arrest without warrant

NON-BAILABLE- no bail given as a right

TRIABLE BY JMFC

Liability to pay compensation upon damage to property

In addition to punishment- compensation twice the amount of damage caused as adjudged by the court and recovered as -Arrears of land revenue

Act not in derogation of any other law

PROVISIONS IN ADDITION TO AND NOT IN DEROGATION OF ANY OTHER LAW FOR TIME BEING IN FORCE

Consensus Discussion - 5
Examination of a Sexual Abuse Victim

The background

Delhi High Court - Judgment 2013 Following Judgment of division bench of DELHI HIGH COURT comprising of chief justice sh. D Murgeshan and justice sh.V.K. stating that the government must issue direction to all hospitals including those in Private sector - not to deny emergency treatment to rape victims - free of cost ailing which - face punishment.

Criminal law amendment act 2013 - amended the following sections of various acts-

- Indian penal code 1860.....S 375/376

- Indian evidence act 1872.....S 53 A(character)S 114 A (absence of consent)S 146 (cross examination)
- Criminal procedure code 1973.....S 53(2)

THREE essentials

- 1st Rape victim of sexual assault or rape is received by sympathetic and sensitive doctor,
- 2nd appropriate medical Exam./care & treatment ,
- 3rd clinical evidence saved.

THREE REQUIREMENTS

- Trained Doctor & her team
- Special kit for examination
- Protocol of Treatment to prevent STD/ Pregnancy is crucial

Before reaching the hospital

As soon as one comes across a victim Of Sexual assault, the first step is to ensure SAFETY. Take her to safe and secure place call the police if danger from the assailant is still there. Call a close friend or relative- someone who will offer unconditional support. One must take care not to clean up before taking them to hospital.

The victim should not bath, go to the bathroom, comb hair, change clothes or brush teeth before undergoing a medical examination. This will help to preserve all the evidence.

Emergency care

- The doctor's job at the emergency room is not to determine if the rape has happened or not.
- Rape is a legal term – a crime – and whether this crime has been committed or not will be decided by the Honorable court.
- Principle of Emergency Care - The attitude of the medical staff should be compassionate and not judgmental and Life threatening emergency, if present needs urgent attention

Who may examine??

Medical examination of a female victim shall be conducted by a FEMALE REGISTERED MEDICAL PRACTITIONER, in absence there of, in presence of a female registered medical practitioner The examination should be made in the presence of a female nurse or a female relation unless the doctor is female

What is to be done

- Consent
- Preliminary data
- Collection of evidence
- Examination
- Treatment for STD
- Pregnancy prevention
- Emotional support

Collection of evidence and examination-

The women usually scratches the assailant during the struggle and this may result in injury to her nail which should be recorded.The debris under nail should be removed and examined for the presence of tags of epithelium, blood, fibers, etc, of the assailant Nails Scrapping

- Microscopic examination of vaginal slides (motile and immotile sperm)
- Vaginal swab (vulva , low vaginal, high vaginal) to stress here that it should be made a routine
- Nail scrubbing (to look for epithelium of the assailant)
- Hairs from mons pubis (to look for seminal stain, foreign hair)
- Seminal stain (blood grouping)
- Ultraviolet test for detection of seminal and saliva stains (optional)
- Blood (blood grouping, Hbsag , STDs , testing drug intoxication)
- Urine (to test for suspected pregnancy, drug testing)

Prevention of pregnancy - Emergency Pill :levonorgestrel 0.75 mg one pill orally every 12 hours for two doses UPT : to be repeated at 1,2 weeks &

MTP : if need be .....DNA/ POLICE

Universal STD Prophylaxis

- Metronidazole 2gm orally - single dose
- Azithromycin 1g - orally single dose
- Ceftriaxone 250 mg I/M single dose
- Optional Hepatitis B vaccination
- Oral HIV pep (Post exposure Prophylaxis) for 4 weeks

Determination of age

- GENERAL PHYSICAL EXAMINATION
- DEV. OF SECONDARY SEXUAL CHARACTERS
- DEVELOPMENT AND ERUPTION OF TEETH
- OSSIFICATION OF BONE-X-ray of Wrist,Elbow and Shoulder

Emotional support

- Sexual assault victim need unconditional emotional support as they may be struggling with emotions of Anger, Fear, Guilt, Shame and anxiety
- The Victim May Suffer From Sleep disturbances Lack of appetite Depression and nightmare Physical pain
- Counseling Most victims find counseling helpful in the process of recovering and moving on with their life.
- The care a patients initially receives influences her recovery from the trauma suffered due to rape Follow up is must

Consensus Discussion - 6
Notifiable Incidents

The following are notifiable incidents to the various authoriies...

Incident	Authority	Relevant act/LAW
Births and Deaths	Registrar of births and deaths	BNHRA, 1949
Stillbirths	MOH Municipal corporation/civil surgeon	BNHRA, 1949
Matenal death	MOH Municipal corporation/civil surgeon	BNHRA, 1949
Non maternal death	MOH Municipal corporation/civil surgeon	BNHRA, 1949
MTP-monthly reports	MOH Municipal corporation/civil surgeon	MTP Act 1971
PCPNDT-Monthly reports	Appropriate authority	PCPNDT Act 1991
Communicable diseases	MOH Municipal corporation/civil surgeon	IPC 1860
Sex determination	Apropriate authority	PCPNDT Act 1991
MTP/Pregnancy Patient <18yrs	Police/special police unit	POCSO Act 2012
ART Procedures	Appropriate authority	PCPNDT Act 1991, (ICMR, ART BILL)
Sexual Harassment	Police/special unit	IPC 1860/POSHW Act 2013
Employment of children	Police/special unit	Child Labor (P n P) Act 2016

In order to prevent the administrative and judicial authorities taking action against medical professionals and healthcare professionals, these compliances have to be adhered to.

Consensus Discussion - 7
Still Birth Medical and Legal Approach

Fetal death before onset of labour or fetus with no signs of life in utero after 20 weeks of gestation

Definition varies : Gestational age | Birth weight

WHO : An infant delivered without signs of life after 20 weeks of gestation or weighing >500 gms when gestation age is not known

WHO Definition (Mac Dorman 2012) : Fetal death means death prior to complete expulsion or extraction from the mother of a fetus irrespective of duration of pregnancy and which is not an induced termination of pregnancy.

IUD Early (20-27 weeks)

Late (≥28 weeks)

- No evidence of life after birth beyond 20 weeks
- Fresh (quality of Intra- partum care)
- Macerated (retained >12 hrs)- (quality of antepartum care)

Three Prong Approach.....

Declaration to the parents/relatives-STAFFBe aware of individual & cultural variations

- Consider the best environment for care
- Balance safety with privacy
- Cancel all appointments etc. that assume an ongoing pregnancy
- Incl. the GP
- Remember partner & family
- Incl. children & grandparents
- Manage as a potential for post traumatic stress disorder
- Offer counselling & support
- Use support groups e.g. SANDS
- Provide a leaflet or similar

Acertaining the cause-Gathering the pieces-History/investigations/ clinical PM/ Genetic counseling

Prevention of medicolegal issues-counseling, documentation, communication, documentation of communication, communication of documentation

Conclusion

The art of medicine cannot be inherited, nor can it be copied from books. Communication skills, valid consent ,due care during treatment/surgery, proper documentation ,expert opinion, rush teams, helping our colleagues, following ethics and guidelines are some of the umbrellas for our protection.

Remember a pat on the back is only a few centimeters away from a kick in the butt.

15

BeWise - BellyWise
Abdominal Girth Reduction Workshop

Author :

Dr. Shirish Patwardhan

MD, Pune

Mobile & whatsApp no – 9422009847

Email:Shirish.patwardhan@gamil.com

Join me on Facebook page - Abdominal Girth Reduction for Life

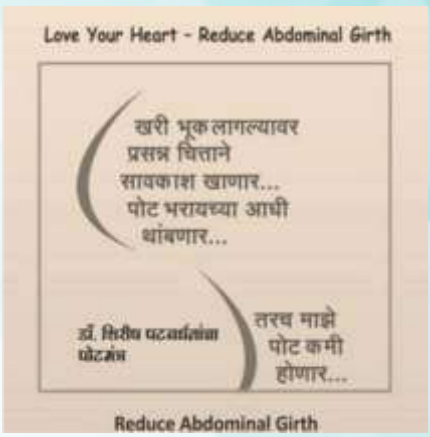
Abdominal Girth Reduction Consultations & Workshops: The first Abdominal Girth Reduction Workshop was conducted in October 2012. Since then innumerable – doctors & non doctors have been part of this activity. Now we have facility of Any Day workshop for a group in Pune / India.

Times out of number, qualified persons occupying responsible positions in politics, medicine, civil services, cinema & the like, neglect their health with disastrous consequences. The loss is too great to describe in words. Scientific evidence shows beyond doubt that Heart attack / cancer / BP / Diabetes start with the person being overweight or obese. **Excess fat** in the body acts as a dumping ground. All the pollution related waste is dumped here. Hence incidence of cancer is more in overweight & obese. **Excess fat** competes for oxygen, required by brain. This matters when we cross 70 years of age. Observe public figures &/or your relatives above 80 & are mentally sharp. They all are lean. So friends, BMI of 20 or 21 is what we should aim for. **Excess fat** plays havoc with the Endocrine System which is akin to President or CEO of an organization / company.

Why has solution eluded us? If the direction/design is wrong, then there is no hope of reaching the destination. This is exactly the case with abdominal girth reduction / weight loss. The right direction is giving 95% importance to how we eat & 5% to what we eat. Other design faults are not taking in to account organ strength, not combining science & spirituality and failing to appreciate that it is quest for life & not a one off event. Separation of physical activity & daily routine is another major design fault. So also is the focus on locomotor system in the exercise schedule with emphasis on speed. Abdominal Girth Reduction does not figure in major preventive programs because medicos & decisions makers are overweight.

The concept of abdominal girth reduction is a unique blend of Science & Spirituality! To make it sustainable life long, understand the principle and develop your own technique. It is the thinking-software that has to change through silence and reflection. The concept has been tried & tested across the country since 2012. It has been experienced by doctors & non doctors with good results.

Food Habits: Focus on sourcing, storage, preparation & consumption require equal attention. The key words are –



खरी भूक लागल्यावर

Eat When Really Hungry

Am I really hungry or eating because of social / family / business reasons? Learn to say no with a smile – politely, gently, firmly & gracefully. Let others continue!

प्रसन्न चित्ताने सावकाश खाणार

Mindful eating

Enjoy / relish each & every morsel of what you eat

Physiological bariatric surgery

पोट भरवयाच्या आधी थांवणार! पूर्णविराम!

Signals of being full or when 80% full

How to recognize 80% fullness

हवे ते {काही वगळता}

Eat whatever you want

Cooked food twice a day (meals). Nothing new here! This is what we are all doing. So nothing is out of bounds. Only the time is restricted. Misal, poha, dosa, idli goes to the meal time category since it is

cooked. Sweets too go the cooked ./ meal time category.

In between (two meals) – for non diabetics – buttermilk – tea without sugar – coconut water – tomato – hot water

In between (two meals) – for diabetics - Sprouts / Raw green leafy vegetables / fruits. What it effectively means is eat anything uncooked between meals.

(applicable for adults over 18 years of age)

Oil audit – 20 ml per day person is the daily dose of oil for the whole day save for children (up to 18 years), pregnant & lactating women. 40 ml per day person is the daily dose of oil for the whole day for children (up to 18 years), pregnant & lactating women. Choose your oil depending on ration of omega 3 to omega 6 fatty acids. Ration of 1:2 is ideal & should not exceed 1:5. Check on the boiling point of the oil. Never re use heated oil again.

Exercise: Traditionally exercise has always been associated with motion & movement. Citius, Altius, Fortius, which is Latin for Faster, Higher, Stronger is the motto of Olympics. We perceive it as the ultimate truth. It was indeed difficult for me to digest that this is not correct. It hurt my misplaced pride that I was wrong for 25 years of my life. I take solace in the fact that it is better late than never! What we are looking at is Physiological fitness. Yogasanas achieve their goal by strengthening the internal organs rather than the apparatus of locomotion. Yogasanas together with Pranayam, Omkar, Brahmari & the like, bring about awareness of the body by uniting the body & the mind. Modern research confirms this fact. Yogasanas have a major role to play in Abdominal Girth Reduction by stimulating endocrine & lymphatic system. YOGA is Your Obesity Goes Away through soft ware change. Yoga has the ability to change personality & attitude of a person for the better. One has to experience this unique feature of yoga.

This is different & better than conventional wisdom of calorie burning. However do not give up your daily dose of walk / jog / Gym. Add Yogasanas to these activities. Remember that right dose of Yogasanas leave you refreshed & energetic. Quest for perfecting Abdominal Girth Reduction workshops has given me a new insight to the way our body functions. This benefit is now for all to experience, benefit & share.

After following the guidelines:

Within 4-6 weeks: Feel lighter, better and energetic.

Within 6 months: Someone will remark that you look unwell. It is still customary to think of chubby cheeks as a mark of good health.

In 12 months: The abdominal girth reduces by 5-12 cm.

All this happens gently, smoothly & without disturbing your prime vocation/profession. I call it 'the butterfly effect.' Rest assured it is sustainable forever!

Nischay: Smart & Safe Abdominal Girth First

Criteria for Smart Abdominal Girth

Abdominal Girth (Waist Circumference) Cut-offs for Asian Indians:

a. Action level 1: Men: 78 cm (31 inches), women: 72 cm (28 inches)

Maintain these levels.

b. Action level 2: Men: 90 cm (35 inches), women: 80 cm (32 inches)

Seek medical help so that obesity-related risk factors could be investigated and managed.

Abdominal girth above 100 cm-39 inches alone is considered as warning signal (WHO).

Being 'jyada healthy' / overweight / having a paunch, by itself is not a disease. However, since all diseases begin with a person having a paunch, Abdominal Girth is an ideal screening tool.

Out of range Abdominal Girth serves as a red flag. Abdominal Girth measurement & monitoring requires no medical personnel & is non-invasive. Minimum equipment is required.

It would be a good idea to add Smart Hb to this message. A Hb level of 12 g plus should be the aim.

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OVULATION INDUCTION CONSENSUS STATEMENT

Author :

Dr. Bharati Dhorepatil

Organising Chairperson,
AMOGS 2018

Author :

Dr. Mamta Dighe

Director, Xenith Advance Fertility Centre, Pune

MCM, POGS & Maharashtra chapter of ISAR

Awarded ICONS of Pune, women

Dr. Noopur Chhasatia

ICOG fellow, Pune Fertility Center.

Consensus guidelines for ovulation induction in Endometriosis

General Guidelines for Management :

- It is recommended for clinicians to perform TVS to diagnose or exclude ovarian endometrioma (grade A evidence, ESHRE)
- Usefulness of 3D sonography and MRI is not well established. (grade D evidence, ESHRE guidelines)
- Medical management in the form of suppressing ovulation is ineffective in improving pregnancy rate (grade A evidence, ESHRE)
- Laparoscopic adhesiolysis/ excision / abalation improves pregnancy rate in stage I & II when compared to diagnostic laparoscopy alone (grade A evidence, ESHRE)
- For stage III & IV AFS/ASRM, operative laparoscopy, instead of expectant management increases spontaneous pregnancy rate (grade B evidence, ESHRE)
- Consider excision of ovarian endometrioma instead of drainage or coagulation. (grade A, ESHRE)

Guidelines for 1st line management for Ovulation Induction :

- In stage I & II endometriosis, COH with IUI improves live birth rate as compared to expected management. (grade C, ESHRE)

  COH with IUI is considered 1st line treatment for mild to moderate endometriosis, however, pregnancy rate are less than those without endometriosis.

So for Mild to Moderate endometriosis, Aromatase inhibitors with Gonadotrophins would be first line treatment as it increases the probability of pregnancy than using CC/Letrozole alone.

Once we have confirmed minimal to mild endometriosis it's advisable to go straightway for COH with IUI, suppression prior to IUI may not be necessary and both FSH and hMG can give similar results. No difference is found even between HP-FSH and rFSH. Though rFSH is more potent and batch to batch variation can be eliminated.

Starting dose can be adjusted according to Age, Ovarian Reserve & previous response to stimulation.

If 3 cycles of COH with IUI fail, use Only Gonadotrophins, consider Laparoscopy (if not done previously) or go for ART.

- EFI (Endometriosis Fertility Index) predicts pregnancy rate after endometriosis surgical staging, where if score is 7-10. IUI is beneficial whereas score < 4 leads to IVF treatment. In between these scores discuss and consider other factors.(David Adamson, Fertility sterility 2010)
- Stage III/IV is associated with poor implantation and lower pregnancy rate. (HM Harb, BJOG 2013)

  IVF/ICSI is the 1st line treatment for these patients.
- If tubal function is compromised, associated male factor present, advanced maternal age, prior failed treatment, poor ovarian reserve – can go directly for IVF/ICSI.
- GnRH agonist for 3-6 mths before ART improves clinical pregnancy rate. (grade B)

  Long GnRh agonist protocol can be helpful here. Though both GnRh Agonist and antagonist protocol has shown similar results in trials.

  Starting dose for Gonadotrohins for ART again depends on Age, Ovarian reserve and previous response patterns.

  Likewise we can manage Ovulation Induction in endometriosis considering all the above mentioned parameters.

Consensus statement for Ovulation Induction in PCOS

- Aim of ovulation Induction in PCOS is to induce ovulation and decrease LH that is detrimental to ova at the same time to prevent OHSS & multiple pregnancy rate, which requires careful approach.
- Rotterdam ESHRE/ASRM consensus group revised 2003 diagnostic criteria should be followed for diagnosing PCOS patients. (Hum Reprod. 2004;19:41–7.)
- Weight loss is the first line management particularly in patients with BMI > 30. Team work is required to help patients lose weight. Wt loss reduces hyperinsulinemia, decreases hyperandrogenemia and increases SHBG, thereby it improves sensitivity to Ovulatory drugs. *(Diabet Med. 2005 Mar;22(3):266-72.)*
- Clomiphene Citrate is considered first line for ovulation induction in PCOS. It induces GnRh release and inturn increases FSH and LH but in PCOS, LH is already high. High LH reduces conception rate and increases abortion rate. Moreover it has an anti-estrogenic effect on endometrium and cervical mucus. Clomiphene may not be suitable 1st line treatment for patients with high BMI, high LH, high androgen or high Insulin. (Fertil Steril. 2008 Mar;89(3):505-22)

- Now Letrozole has become a first line treatment for OI in PCOS. It has no detrimental effects on endometrium and cervical mucus, it induces mono-follicular development. It is mainly indicated in CC resistant cases, high E2, high LH and along with Gonadotrophins to reduce the cost and no of injection.(Fertil Steril. 2009 Sep;92(3):853-7)
- rFSH in a chronic low dose protocol is the preferred treatment if cost is not a prohibiting factor. (Prof Roy Homburg,2005). Pregnancy rate can be doubled to that of CC and time to achieve pregnancy is reduced (1st cycle 30% vs 14%, 2nd cycle 50% vs 32%). rFSH is better than hMG here. Starting dose should be 50-75 IU/day for first 14 days f/b small incremental dose rise of 25-37.5 IU for minimum 7 days. Low dose gonadotrophin reduces multifollicular development, reduces OHSS and multiple pregnancies.
- Laparoscopic Ovarian Drilling helps in case of CC resistance, thin lean PCOS with high LH or high AMH (6-8). It can be combined when there are other indications for laparoscopy. (Hum Reprod. 2012 Dec;27(12):3577-82.)
- Metformin can be added to CC resistant cases and to improve response in clomiphene and gonadotrophin induced cycles. Though evidence is found only in cases of glucose intolerance, DM type 2 and insulin resistant cases. (N Engl J Med. 2007;356:551–66.)
- Corticosteroids can be added as adjuvants in case of high DHEA-s. (Fertil Steril. 1984;41:844–8.)
- GnRh Antagonist protocol is useful particularly in thin lean PCOS where LH is high. If antagonist is added when atleast one follicle is more than or equal to 14 mm, premature LH surge is prevented. (Hum Reprod Update. 2017 Sep 1;23(5):560-579.)
- GnRh Agonist as ovulation trigger is better than hCG in PCOS because of it's short duration of action it prevents OHSS, less oestrogen and progesterone gives better implantation rate. Luteal support is needed in these patients. (J Hum Reprod Sci. 2016 Jul-Sep;9(3):164-172.)
- PCOS is not an indication of IVF as such but when there are associated factors like tubal dysfunction, Male factor or failed gonadotrphin therapy it can be resorted. (R. Homburg, 2014 Ovulation Induction and Controlled Ovarian Stimulation)
- IVM (In vitro maturation) is a newer advancement in ART as it prevents the risk of OHSS and treatment cost is low. (Fertil Steril. 2012 Aug;98(2):355-60)
- **Food for Thought : Can we manage Ovulation Induction in PCOS according to different phenotypes?**

  We can individualise PCOS patients into four groups according to Rotterdam's criteria, looking at their phenotypes. (Reprod Sci. 2014 Aug; 21(8): 1034–1043.)

  1. Hyperandrogenism (HA)+ oligo-anovulation

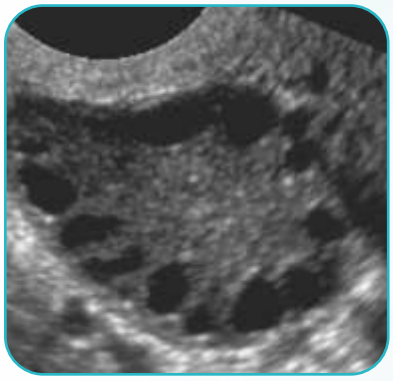
  (OA)+polycystic Ovarian Morphology (PCOM)--phenotype A (Classic PCOS)

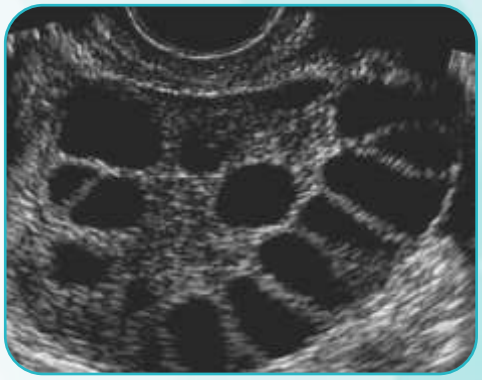
  2. HA+OA— phenotype B (normal ovarian morphology, oligo-ovulatory PCOS)

  3. OA+PCOM— phenotype C (no hyperandrogenism)

  4. HA+ PCOM—phenotype D (ovulatory PCOS)

  Patients with Polycystic Ovarian Morphology can be further classified into two groups, depending on cyst diameter and stromal echogenicity. (Ultrasound Obstet Gynecol 1998;11:332-336.)





1. Peripheral Cystic pattern - These pts have increased stromal echogenicity with cyst size 2-8mm, arranged peripherally. They have high ovarian androgen, high LH level as well as abnormal gonadotrophic secretion and high FSH threshold, so gonadotrophins can be considered 1st line treatment in them and they may require higher starting dosage. Dose of gonadotrophin can be individualised based on Age, BMI, AMH, AFC and previous response(if known).
2. Generalised Cystic Pattern - Pts with low stromal echogenicity and cysts of 8-10 mm dispersed throughout the ovary. These patients have ovarian steroidogenesis disorder so they can be managed well by chronic low dose step-up gonadotrophin protocol, careful monitoring is required to avoid OHSS. Again starting dose can be calculated based on Age, BMI, AFC & AMH.

   Aromatase inhibitors are suitable first-line for Ovulatory PCOS or hyperestrogenic patients.

   Clomiphene Citrate can be used as first-line treatment in young patients or hypoestrogenic patients.

   So we cannot keep all PCOS pts in the same basket as far as Ovulation Induction is considered, as they behave differently! We should stratify our patients into different categories, protocols and doses can be individualised according to patient's characteristics.

Consensus statement for ovulation Induction in Poor Responders

- Multiple definitions exist for poor responders.
- Till now Bologna criteria (Ferraretti et all, 2011) was the most commonly followed definition:

  1. Advanced maternal Age >40 or any other risk factor or POR

  2. A previous poor ovarian response (cycles cancelled or less than 3 oocytes with conventional protocol)

  3. An abnormal ovarian reserve test (AFC < 5-7, AMH< 0.5-1.1 ng/ml) In the absence of 1 & 3, two previous episodes of poor ovarian response after maximal stimulation.
- There were few shortcomings of Bologna criteria—

  1. Due to genetic polymorphism each patient react differently to the same gonadotrophin dosage.

  2. Bologna criteria does not give estimation of Live Birth rate according to Age.

  Age-related embryo aneuploidy rate dramatically changes the prognosis of women with the same oocyte yield as well as those with different oocyte yields. POSEIDON concept is based on (i) a better stratification of women with "low prognosis" in ART, and (ii) individualized therapeutic approaches in each group, having as endpoint the number of oocytes required to have at least one euploid embryo for transfer in each patient.

POSEIDON GROUP 1

Your patients <35 years with adequate ovarian reserve parameters (AFC≥ 5; AMH ≥ 1.2 ng/ml) and with an unexpected poor or suboptimal ovarian response.

- Subgroup 1a: <4 oocytes*
- Subgroup 1b: 4-9 oocytes retrieved*

*after standard ovarian stimulation

POSEIDON GROUP 2

Older patients ≥ 35 years with adequate ovarian reserve parameters (AFC≥ 5; AMH≥ 1.2ng/ml) and with an unexpected poor or suboptimal ovarian response.

- Subgroup 2a:<4 oocytes*
- Subgroup 2b: 4-9 oocytes retrieved*

*after standard ovarian stimulation

POSEIDON GROUP 3

Your patients (<35 years) with poor ovarian reserve pre-stimulation parameters (AFC<5; AMH<1.2 ng/ml)

POSEIDON GROUP 4

Older patients (≥ 35 years) with poor ovarian reserve pre-stimulation parameters (AFC≥ 5; AMH< 1.2ng/ml)

- Now if we try to manage our patients according to Poseidon group classification, we may follow these protocols for Ovulation induction:

  Group 1 and 2- are hypo- responders with LH over inhibition and /or FSH/LH receptor polymorphisms. Here usually an unexpected poor response is seen. Strategies include, increasing the Gondotrophin dose, adding LH activity and investigating for receptor gene polymorphisms.

  However the older group will require more oocytes to obtain a similar live birth rate and if adequate oocytes are not developed in a single cycle, may require stimulation again.

  1. Group 1 –These patients are relatively young with adequate ovarian reserve as per AMH & AFC measurements still they show poor response to conventional ART treatment protocols so, we can increase the dose of gonadotropins, add hMG/rLH/hCG to our treatment protocol or we may check FSH receptor polymorphism and decide accordingly.

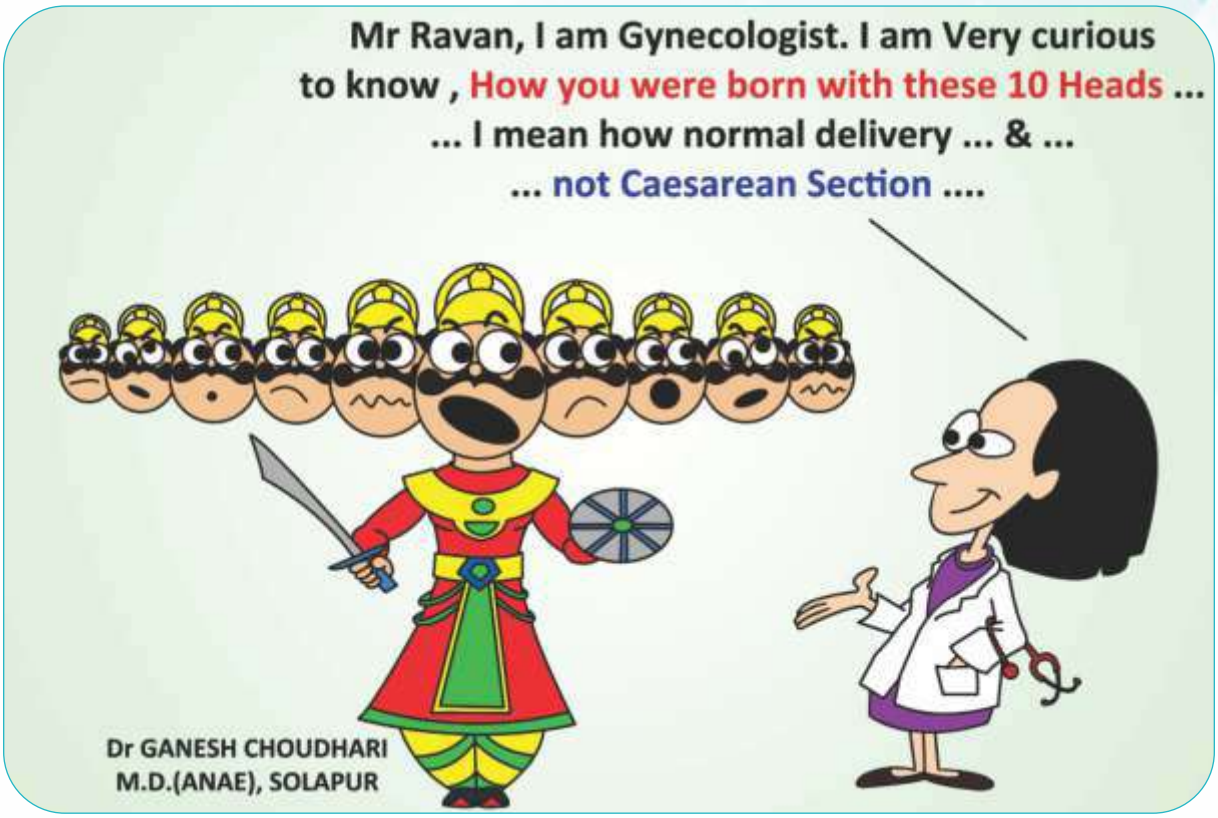
  2. Group 2—These patients are older than 35 but ovarian reserve parameters are within the range. Similar strategies to group 1 can be followed but these patients may require higher number of oocytes to that of group 1 for similar LBR. In this case we can repeat the stimulation to get more number of oocyte or we can go for double stimulation.

  3. Group 3 - These patients are young so even if ovarian reserve is poor, the oocytes which we get after stimulation are of good quality. We can use long GnRh protocol(for synchronous follicular development)or antagonist protocol for these patients. Young patients with poor ovarian reserve parameters can be kept on androgens(DHEA, testosterone), luteal phase estrogen or other adjuvant therapy .We may have to go for multiple cycles for oocyte collection. We can also consider double stimulation in this group. (Ubaldiet al., 2015).

  4. Group 4 - We need to understand here that we cannot stimulate follicles which are not there so sometimes we don't have any option but to go for Donor oocyte in this subgroup. We can counsel these patients about realistic chances and offer them donor oocyte treatment if they wish. Addition of Growth hormone, Testosterone and Dual stimulation can be considered to acquire more oocytes after adequate counseling.

- Transdremal Testosterone treatment (Bosdou et al,2011), Growth Hormone supplementation (Kolibianskis et al, 2009), addition of recombinant LH have shown some beneficial effect in treatment of poor responders. *(Humaidanet al., ESPART 2017)*
- Aspirin, L-Arginine and DHEA pretreatment do not translate into increased clinical pregnancy or Live birth rate. *(J Hum Repro Sci 2016)*
- GnRh Antagonist protocol is generally preferred over Long agonist protocol as it reduces duration of stimulation, less gonadotrophins are used and LH surge is prevented.
- Minimal stimulation IVF is preferred as it reduces burden of unnecessary treatment on healthcare.
- Doses higher than 300 IU doesn't improve the probability of pregnancy. *(Cedrin-Durnerin et al., 2000)*
- Day 2 V/s Day 3 ET- shortening the duration of in vitro conditions in embryo culture is associated with improved pregnancy rate by increasing the number of embryos available for transfer. *(Bahceci et al, 2006)*
- In clinical terms, apart from the number of oocytes retrieved, various features that may affect treatment outcomes must be considered in the management of patients, namely: 1) the age-related embryo/blastocyst aneuploidy rate, which could dramatically change the prognosis in women that have the same oocyte yield; and 2) ovarian "sensitivity" to exogenous gonadotropins, which could be related to a specific genetic profile. *(Fertility Sterility 2016)*
- Tailored approach after stratification by POSEIDON criteria may improve ART success rates in coming years.

Fun Corner



CONSENTS

17

MTP AFFIDAVIT IN UNMARRIED PATIENTS

Author :
Dr. Kiran Kurtkoti
Chairperson MTP Committee FOGSI (2009-11)
Chairperson MTP Committee AMOGS (2007-2009)

I, _____

AADHAR No._____ PAN_____

Daughter/ wife / partner of _____

AADHAR No._____ PAN_____

aged _____Years resident of _____

_____

do hereby declare and state on solemn a affirmation as under:

1. I am voluntarily admitted at _____.
2. I am not admitted by threat or coercion.
3. I am more than 18 years of age.
4. I am accompanied by another person of age more than 18 years.
5. **I am pregnant as a result of consensual sex.**
6. **The pregnancy is NOT as a result of rape.**
7. I say & undertake to abide by the provisions of the Pre-Conception and Pre-natal-Diagnostic techniques (Probhition Of Sex Selection) Act 2003 and the rules made there under.
8. I have not conducted any test or procedures, by what –so-ever name called, for selection of "Sex"

before or after conception or for dection of sex of fetus .

9. I have opted to voluntarily terminate the pregnancy .The reason for such termination is " that continuation of pregnancy will result in grave injury to my physical & mental health" .
10. If I feel necessary , I undertake the responsibility of informing the decision of voluntary termination of pregnancy to my parents , spouse or partner or combination thereof as the case may be.
11. I do not wish to conduct paternity ,chromosomal,genetic or any other tests on the products of conception or embryo.
12. I am aware that the products of conception would not be available for such testing once they are disposed off.
13. I will not hold Dr._____ ,Dr._____ ,staff of _____Nursing Home ,laboratory staff responsible for any lawsuit which may arise later done by me,my family or any other person ,NGO or organization..

This affidavit is made for submitting the same to the Appropriate Authority or magistrate or lawyer or combination there of as the case may be.

The above contents are true and correct to the best of knowledge and belief.

Place : Pune

DEPONENT

Notarised

18

CONSENT FOR LAPAROSCOPIC PROCEDURES

Author :
Dr. Kishore Pandit
MBBS, DGO, Fellow IVF (UK),
Fellow Endoscopy, (Germany)
Vice President, POGS (2017-18)

A. Patient identifier/ label

_____

B. Condition and treatment

The doctor has explained that you have the following condition: (Doctor to document in patient's own words)

_____

This condition requires the following procedure/ treatment/investigation. (Doctor to document – include site and/or side where relevant to the procedure)

_____

The following will be performed:
A tube is put into the abdomen and instruments passed down the tube to examine the inside of the abdomen and pelvis using a camera and video monitor.
Sometimes, bands of fibrous tissue grow around the bowel or other organs. If so, the doctor may need to cut these. The doctor may also need to operate on the pelvic organs.

C. Risks of this procedure

There are risks and complications with this procedure.

They include but are not limited to the following.

General risks:

- Bleeding could occur and may require a return to the operating room. Bleeding is more common if you have been taking blood thinning drugs such as Warfarin, Asprin, Clopidogrel (Plavix or Iscover) or Dipyridamole (Persantin or Asasantin).
- Small areas of the lung can collapse, increasing the risk of chest infection. This may need antibiotics and physiotherapy.
- Increased risk in obese people of wound infection, chest infection, heart and lung complications, and thrombosis.
- Heart attack or stroke could occur due to the strain on the heart.
- Blood clot in the leg (DVT) causing pain and swelling. In rare cases part of the clot may break off and go to the lungs.
- Death as a result of this procedure is possible.

Specific risks:

- Deep bleeding inside the abdomen. His may need fluid replacement, blood transfusion or further surgery. This may mean a longer than expected stay in hospital and longer recovery time.
- Damage to other organs, such as bladder or bowel, which may need further surgery. This may mean a longer than expected stay in hospital and longer recovery time.
- Rarely the gas, which is passed into the abdomen, can cause heart and chest complications.
- Infections such as pus collections in the abdominal cavity. This may need surgical drainage and antibiotics.
- Adhesions (bands of scar tissue) may form and cause a bowel obstruction. This can be a short term or a long term complication and may need further surgery.
- In some people, healing of the wound may be abnormal and the wound can be thickened and red and the scar may be painful.
- A weakness in the wound with the development of a hernia (rupture). This may need further surgery.
- Increased risk in smokers of wound and chest infections, heart and lung complications and thrombosis.
- Very low possibility of a fistula (a connecting passage between one area and another) developing.
- There is a possibility that the symptom(s)/pain you have been experiencing and the reason for this operation, may not resolve or worsen as a complication of the procedure.
- The cause of pain/other symptoms sometimes cannot be found, if you are having an exploratory operation.
- A tube is put into the abdomen and instruments passed down the tube to examine the inside of the abdomen and pelvis using a camera and video monitor.
- Sometimes, bands of fibrous tissue grow around the bowel or other organs. If so, the doctor may need to cut these. The doctor may also need to operate on the pelvic organs.

D. Significant risks and procedure options

(Doctor to document in space provided. Continue in Medical Record if necessary.)

_____

_____

E. Risks of not having this procedure

(Doctor to document in space provided. Continue in Medical Record if necessary.)

_____

_____

F. Anaesthetic

This procedure may require an anaesthetic. (Doctor to document type of anaesthetic discussed)

_____

_____

G. Patient consent

I acknowledge that the doctor has explained;

- My medical condition and the proposed procedure, including additional treatment if the doctor finds something unexpected. I understand the risks, including the risks that are specific to me.
- The anaesthetic required for this procedure. I understand the risks, including the risks that are specific to me.
- Other relevant procedure/treatment options and their associated risks.
- My prognosis and the risks of not having the procedure.
- That no guarantee has been made that the procedure will improve my condition even though it has been carried out with due professional care.
- The procedure may include a blood transfusion.
- Tissues and blood may be removed and could be used for diagnosis or management of my condition, stored and disposed of sensitively by the hospital.
- If immediate life-threatening events happen during the procedure, they will be treated based on my discussions with the doctor or my Acute Resuscitation Plan.
- A doctor other than the Consultant may conduct the procedure. I understand this could be a doctor undergoing further training.

I have been given the following Patient Information Sheet/s:

About Your

- Anaesthetic
- Laparoscopy

- I was able to ask questions and raise concerns with the doctor about my condition, the proposed procedure and its risks, and my treatment options. My questions and concerns have been discussed and answered to my satisfaction.
- I understand I have the right to change my mind at any time, including after I have signed this form but, preferably following a discussion with my doctor.
- I understand that image/s or video footage may be recorded as part of and during my procedure and that these image/s or video/s will assist the doctor to provide appropriate treatment.

On the basis of the above statements,

I request to have the procedure

Name of Patient : _____

Signature : _____

Date : _____

Patients who lack capacity to provide consent

Consent must be obtained from a substitute decision maker/s in the order below.

Does the patient have an Advance Health Directive (AHD)?

Yes -- Location of the original or certified copy of the AHD:

_____

No -- Name of Substitute

Decision Maker/s : _____

Signature : _____

Relationship to patient : _____

Date : _____ **PH No** : _____

Source of decision making authority (tick one) :

- **Tribunal-appointed Guardian**
- **Attorney/s for health matters under Enduring Power of Attorney or AHD**
- **Statutory Health Attorney**
- **If none of these, the Adult Guardian has provided consent.**

H. Doctor/delegate Statement

I have explained to the patient all the above points under the Patient Consent section (G) and I am of the opinion that the patient/substitute decision maker has understood the information.

Name of Doctor/delegate : _____

Designation : _____

Signature : _____

Date : _____

I. Interpreter's statement

I have given a sight translation in _____ *(state the patient's language here)* of the consent form and assisted in the provision of any verbal and written information given to the patient/parent or guardian/substitute decision-maker by the doctor.

Name of Interpreter : _____

Signature : _____

Date : _____

Consent Information - Patient Copy Laparoscopy

1. What do I need to know about this procedure?

A laparoscopy procedure is where a tube is put into the abdomen and instruments passed down the tube to examine the inside of the abdomen and pelvis using a camera and video monitor.

Sometimes, bands of fibrous tissue grow around the bowel or other organs. If so, the doctor may need to cut these. The doctor may also need to operate on the pelvic organs.

2. My anaesthetic

This procedure will require an anaesthetic.

See About Your Anaesthetic information sheet for information about the anaesthetic and the risks involved. If you have any concerns, discuss these with your doctor.

If you have not been given an information sheet, please ask for one.

3. What are the risks of this specific procedure?

There are risks and complications with this procedure.

They include but are not limited to the following:

General risks:

- Bleeding could occur and may require a return to the operating room. Bleeding is more common if you have been taking blood thinning drugs such as Warfarin, Asprin, Clopidogrel (Plavix or Iscover) or Dipyridamole (Persantin or Asasantin).

- Small areas of the lung can collapse, increasing the risk of chest infection. This may need antibiotics and physiotherapy.
- Increased risk in obese people of wound infection, chest infection, heart and lung complications, and thrombosis.
- Heart attack or stroke could occur due to the strain on the heart.
- Blood clot in the leg (DVT) causing pain and swelling. In rare cases part of the clot may break off and go to the lungs.
- Death as a result of this procedure is possible.

Specific risks:

- Deep bleeding inside the abdomen. His may need fluid replacement, blood transfusion or further surgery. This may mean a longer than expected stay in hospital and longer recovery time.
- Damage to other organs, such as bladder or bowel, which may need further surgery. This may mean a longer than expected stay in hospital and longer recovery time.
- Rarely the gas, which is passed into the abdomen, can cause heart and chest complications.
- Infections such as pus collections in the abdominal cavity. This may need surgical drainage and antibiotics.
- Adhesions (bands of scar tissue) may form and cause a bowel obstruction. This can be a short term or a long term complication and may need further surgery.
- In some people, healing of the wound may be abnormal and the wound can be thickened and red and the scar may be painful.
- A weakness in the wound with the development of a hernia (rupture). This may need further surgery.
- Increased risk in smokers of wound and chest infections, heart and lung complications and thrombosis.
- Very low possibility of a fistula (a connecting passage between one area and another) developing.
- There is a possibility that the symptom(s)/pain you have been experiencing and the reason for this operation, may not resolve or worsen as a complication of the procedure.
- The cause of pain/other symptoms sometimes cannot be found, if you are having an exploratory operation.

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CESAREAN SECTION CONSENT

Author :
Dr. Girish Godbole
M.D,
Chief Lead,
Dept. of OB.Gyn.
Deenanath Mangeshkar Hospital Pune

Introduction:

Recently there has been a upsurge in the concerns regarding the increase in the cesarean section (CS) rates all over the world. The WHO recommends that the total CS rates (both elective and emergency procedures) should be 15% but makes no assessment of appropriate emergency CS rates within this total rate. It has been acknowledges that the rate is not being achieved by even the most developed countries all over the world. There a no studies to recommend a optimal rate for CS.

The variation in the rates of emergency CS are even more than the elective CS, for the reason that an emergency CS is really a very special situation surgical procedure.

Depending on the urgency the cesarean sections can be categorized into grades as follows :

Grade1 : Immediate threat to the life of the mother or the fetus (16%)

Grade2 : Likely compromise to the Mother or the fetus (32%)

Grade3 : Need for early intervention and delivery for a reason in the mother or the fetus (18%)

Grade4 : Non-urgent planned procedure timed to suit the mother and the health care provider (31%)

The discussion of rising rates is important for reason that it is directly proportional to the indications of a CS being performed, which is an essential component of a CS consent.

'When informed consent for cesarean delivery is obtained at the time the decision for cesarean delivery is made, women may be asked to consent quickly. (Grade 1&2).This has particular importance to physicians who care for pregnant women and may speak to a need to discuss the risks, benefits and alternatives to cesarean delivery during routine prenatal care, before the onset of labor (Grade 3). There

is a definite need to explore strategies for the informed consent process of labor and delivery, which is unpredictable and has considerable emotional ramifications for the patient and her family. future studies should focus on identifying strategies that allow patients the opportunity to fully understand delivery modes including cesarean section without engendering fear of the process of labor.

Cesarean sections are special situation procedures for a reason that there are two lives at stake and the care provider has concerns for both. Moreover the inbuilt unpredictability of the procedure makes it all the more important on the part of the care provider and the operating surgeon to be diligent in taking a proper, relevant & elaborate consent. A CS consent involves discussion of the risks and benefits of the proposed CS with the mother and her partner/ relatives. It is a good practice to obtain written consent before an emergency CS. In extreme situations like severe fetal prolonged bradycardia or a life threatening massive abruption (Grade1 CS) verbal consent is acceptable but a rapid,detailed and clear explanation of the need for the operation is warranted.

For ease of understandingand detailing, let us categorise the consents as routine, special situations and additional elective procedures done with a CS.

The content of the routine CS consent would include the following:

- **Name of the procedure**
- **Whether elective or emergency**
- **Intended benefits:** where risks of a vaginal delivery are more than those of the cesarean section procedure.
- **Serious risks :**

  Maternal:

- emergency hysterectomy, 7-8 out of 1000 (uncommon)
- need for further surgery at a later date, including curettage, 5 out of 1000 (uncommon)
- admission to intensive care unit (highly dependent on reason for caesarean section),

  9out of 1000 (uncommon)
- thromboembolic disease, 4–16 women in every 10 000 (rare)
- bladder injury, one woman in every 1000 (rare)
- ureteric injury, three women in every 10 000 (rare)
- death, approximately one woman in every 12 000 (very rare).

Future Risks:

- increased risk of uterine rupture during subsequent pregnancies/deliveries, 2-7 out of 1000 (uncommon)
- increased risk of antepartum stillbirth, 1-4 in every 1000 (uncommon)
- increased risk in subsequent pregnancies of placenta praevia and placenta accreta, 4-8 in

every 1000 (uncommon).

Frequent risks:

Maternal:

- persistent wound and abdominal discomfort in the first few months after surgery, 9 out of 100 (common)
- increased risk of repeat caesarean section when vaginal delivery attempted in subsequent pregnancies, 1out of 4 (very common)
- readmission to hospital, 5out of 100 (common)
- haemorrhage, 5 out of 1000 (uncommon)
- infection, 6 out of 100 (common).

Fetal:

- lacerations, 1-2 babies in every 100 (common).

Any extra procedures which may become necessary during the procedure:

- Hysterectomy
- Blood transfusion
- Repair of damage to bowel, bladder or blood vessels.

- ## What the procedure is likely to involve, the benefits and risks of any available alternative treatments, including no treatment

  Delivery of the baby or babies and placenta or placentas through an open approach through an abdominal incision and an incision into the uterus. Both incisions are usually transverse. If either a midline abdominal incision or a classical uterine incision is being considered, the woman must be informed of the reasons and the added risks. Sometimes forceps are used to deliver the head, especially with breech presentations. The reason for the caesarean section must be clearly discussed, as must the risks to mother and/or baby of not performing the caesarean section. An informed, competent pregnant woman may choose the no-treatment option; that is, she may refuse caesarean section, even when this would be detrimental to her own health or the wellbeing of her fetus.

- **Statement of patient: procedures which should not be carried out without further discussion**

  Other procedures, which may be appropriate but not essential at the time, such as ovarian cystectomy/ oophorectomy, should be discussed and the woman's wishes recorded.

Preoperative information

A record should be made of any sources of information (e.g RCOG or locally produced information leaflets/tapes) given to the woman prior to surgery.

- **Anaesthesia**

Where possible, the woman must be aware of the form of anaesthesia planned and should be given an opportunity to discuss this in detail with the anaesthetist before surgery. It should be noted that, with obesity, there are increased risks, both surgical and anaesthetic.

- **Statement of the Interpreter:** (Where appropriate)
- Due space for signatures / LHTI of the Mother with date
- Due space for signatures / LHTI of the Spouse / Relative with date
- Due space for signature of the Care Provider with date

• Consent for special situation CS:

1. Consent for CS with Placenta Praevia:

The aim of a separate consent for this is to highlight the specific additional consequences of performing a cesarean section in presence of a placenta praevia. It emphasized that adequate discussions are carried out with the mother and her partner in the prenatal period regarding the strategies to minimize the possible complications of the proposed procedure. Also of paramount importance is the chance for the mother to ask questions pertaining the to the procedure. Additional procedures/ services and requirements should be properly informed prior to the procedure (e.g: Institutional delivery, ICU requirement, International radiologist procurement, transfusion necessity, need for NICU for the baby)

The content of this special situation CS consent is crucial and should ideally be in relentless additional risk details which would include the following:

- Additional risk of a Obstetric Hysterectomy (11 out of 100)(very common) to be mentioned in the consent.
- Need for second procedure in the form of a laparotomy (75 out of 100) (common)
- Thromboembolic disease, up to three in 100 women (common)
- Bladder or ureteric injury, up to six in 100 women (common)
- Future placenta praevia, 23 in 1000 women (common)
- Massive obstetric haemorrhage, 21 in 100 women (very common). In women with placenta praevia and previous caesarean section:
- Emergency hysterectomy, up to 27 in 100 women (very common). In women with an abnormally adherent placenta (e.g. placenta accreta):
- The woman should be advised that hysterectomy is highly likely. If the placenta is found to be abnormally adherent to the wall of the uterus, it may be safer to leave the placenta inside the uterus or to perform a planned caesarean hysterectomy to avoid heavy bleeding than to attempt removal. Excessive bleeding may require blood transfusion and other procedures, including emergency hysterectomy, to control it. Admission to a critical care unit may then be necessary. 2

Frequent risks:

- Maternal
- Admission to intensive care.
- Infection.
- Blood transfusion.
- Fetal
- Admission to neonatal intensive care.

Any extra procedures which may become necessary during the procedure

- Repair of damage to bowel, bladder or blood vessels.
- Specifically, where placenta praevia accreta is suspected owing to the combination of placenta praevia and previous caesarean section and/or imaging information, discussion concerning the following (where available) should take place:
- Cell salvage: this reduces the small risk of transmission of infection and transfusion reactions associated with the use of donated blood; however, there is a theoretical risk of maternal sensitisation to the baby's blood and, rarely, amniotic fluid embolism. Neither of these complications has yet been confirmed by published research.
- Interventional radiology:

This occludes the uterine blood vessels by cannulation of the femoral artery under X-ray screening. Foam plugs, balloons or coils are passed through these cannulas to block the vessels and control bleeding, either temporarily or permanently. The risks of this intervention should be discussed with the woman by the radiologist in advance. 6. What the procedure is likely to involve and the benefits and risks of any available alternative treatments, including no treatment The procedure is likely to involve delivery of the baby/babies and placenta/placentas through an open approach using an abdominal incision and an incision into the uterus. Both incisions are usually transverse. If either a midline abdominal incision or a classic uterine incision is being considered, the woman must be informed of the reasons and the added risks. Sometimes forceps are used to deliver the head, especially with breech presentations. The reason for the caesarean section must be clearly discussed and documented, as must the great risk to mother and baby of not performing the caesarean section. An informed, competent pregnant woman may choose the no-treatment option, i.e. she may refuse caesarean section, even when this would be detrimental to her own health or the wellbeing of her fetus. In such a situation every attempt must be taken to ensure the woman and her birth partner realise the critical importance of the caesarean section in this specific situation.

2. Consent for Maternal Request CS or Caesarean Delivery on Maternal Request (CDMR):

The term Caesarean Delivery on Maternal Request (CDMR) refers to elective delivery by caesarean section at the request of a woman with no identifiable medical or obstetric indications to an attempt at vaginal delivery.

Caesarean delivery on maternal request estimates range from 4%to18% but there is little confidence in

the validity of these estimates as CDMR is not a well recognised clinical entity and there are currently no accurate means of reporting it.

A number of pregnant women nowadays prefer caesarean to vaginal delivery for various non-medical reasons. There are some definite risks and felt benefits to this decision for both mother and baby. It is important to know that the risks may not be apparent until subsequent pregnancies. Women considering elective caesarean delivery where there is no medical reason should discuss this decision with their obstetrician. So to say, a peer opinion.

A maternal request for avoidance of a vaginal birth almost always comes out of some fear in the mother's understanding of childbirth and its future consequences. Sometimes it may be the fear of pain during vaginal birth, fear of a mishap resulting in a compromised neonatal outcome or simply nonacceptance of a post-delivery pelvic & perineal changes and compromise in function thereupon.

Anal incontinence and sphincter defects are not noted after elective CS.11, 12 CS may decrease the risk of pelvic organ prolapse but cannot be routinely advocated for the prevention of prolapse.

One can expect that approximately 1.4 in 1000 can have an antenatal, intrapartum or neonatal death after 39 weeks gestation, increasing to 4.6/1000- at 41 weeks gestation. This is an unacceptable risk for many women and health professionals. Perinatal mortality from elective CS has been quoted at 10 times lower than that from vaginal birth.

The risks of complication from elective CS (7%) is approximately half that of emergency CS in labour (16.3%) and instrumental vaginal deliveries (12.9%).

Adequate and accurate information in the CS consent may be sufficient to alleviate concerns and some issues, such as fear of pain and labour (tocophobia), may be satisfactorily addressed in other ways. The expected family size needs to be taken into account. Any decision making needs to take into account local jurisdictional factors.

Placenta accreta becomes increasingly common post CS. Placenta accreta was present in 0.24%, 0.31%, 0.57%, 2.1%, 2.3% and 6.7% of women undergoing their first, second, third, fourth, fifth, and sixth or more caesarean deliveries, respectively.

One could follow the following strategy for a CDMR in the antenatal period:

- Detailed Counseling
- Peer second opinion
- Psychiatric second opinion
- Prior antenatal consent to explain all aspects of a CS on demand.

If the mother is ready to sign the consent after going through the contents of the consent, one may respect her wishes.

Sample Consent for Maternal Request CS:

Maternal request Caesarean delivery consent form

I, Mrs ..... understand that I have the option for vaginal delivery and that I do not have specific medical indications for caesarean delivery.

I understand the risks and benefits of an elective primary caesarean delivery as explained below and as explained by my clinician. I am aware that other risks and complications may occur.

I understand that an uncomplicated vaginal delivery is safer than an uncomplicated cesarean section as listed below :

1. The short term disadvantages of planned cesarean over vaginal delivery include longer hospital stay ,higher infection rates and more anaesthetic complications and lower breast feeding initiation rates.
2. There is increased risk of Bladder and bowel injury during caesarean section as compared to vaginal delivery though this risk is very low.
3. Respiratory morbidity in neonate including difficulty breathing immediately after birt (TTN/RDS) are more common after elective LSCS
4. A caesarean delivery can lead to serious problems in future pregnancies. Occasionally, the placenta in a future pregnancy can implant over the old caesarea scar. This increases the risk of bleeding and premature delivery.The chance of the placenta implanting in the wrong place increases with each additional cesarean..
5. Having had one caesarean increases the chance of having another one. Each caesarean increases the risk of scarring afterwards and may increase the difficulty of future surgeries. There is also an increased risk for rupture of the uterus during labour for women who have had a previous caesarean .
6. Rarely, the inability to get pregnant, or chronic pelvic pain, may result from scar tissue (adhesions) that may form after caesarean delivery.

After having read and understood the above I give my consent for caesarean section .

Signature :
Patient name:

Signature :
Relative name:

DATE:

TIME:

Consent for Additional Procedures with CS:

Surgical Sterilisation (Puerperal Sterilisation at CS):

Few situations may demand an additional surgical procedure along with the procedure of CS. This could be predecided as in a puerperal sterilisation or may be a surprise situation during the CS procedure (e.g: need for oophorectomy or ovariectomy, removal of a pedunculated fibroid, need for biopsy of a suspicious lesion, severe adhesion excision)

Surgical Sterilisation must follow all the statutes as per the Indian Standards for a permanent female sterilisation procedure.

Being an elective additional prodedure, prior discussion on the issue of 'Regret' is a good practice. Option of longterm contraceptive alternatives should also be discussed. (PPIUCD in the Indian context). One must never perform an additional surgical sterilisation procedure on a patient with whom a prior discussion and a consent has not been procurred.

Some additional procedures may be required to perform in the interest of the patient in an unforseen circumstance. It may performed but followed by a through, detailed documentation for the need to cayy out that particular additional surgical procedure.

References

1. Royal College of Obstetricians and Gynaecologists. Obtaining Valid Consent. Clinical Governance Advice No 6. London: RCOG; 2008 [www.rcog.org.uk/womens-health/clinical-guidance/obtaining-valid-consent].
2. Royal College of Obstetricians and Gynaecologists. Presenting Information on Risk. Clinical Governance Advice No. 7. London: RCOG; 2008 [www.rcog.org.uk/womens-health/clinical-guidance/presenting-information-risk].
3. Hager RM, Daltveit AK, Hofoss D, Nilsen ST, Kolaas T, Oian P, et al. Complications of caesarean deliveries: rates and risk factors. Am J Obstet Gynecol 2004;190:428–34.
4. Royal College of Obstetricians and Gynaecologists. Consent Advice No. 7: Caesarean section. London: RCOG; 2009

   [http://www.rcog.org.uk/womens-health/clinical-guidance/caesarean-section-consent-advice].
5. Royal College of Obstetricians and Gynaecologists. Clinical Governance Advice No. 7: Presenting information on risk. London: RCOG; 2008

   [http://www.rcog.org.uk/womens-health/clinical-guidance/presenting-information-risk].
6. Choi SJ, Song SE, Jung KL, Oh SY, Kim JH, Roh CR. Antepartum risk factors associated with peripartum cesarean hysterectomy in women with placenta previa. Am J Perinatol 2008;25:37-41.
7. Frederiksen MC, Glassenberg R, Stika CS. Placenta previa: a 22-year analysis. Am J Obstet Gynecol 1999;180:1432–7.

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IUI(D) CONSENT

Author :

Dr. Ashish R. Kale

MD, DNB,MNAMS, FICOG, FICS. Fellowship in Endoscopy (GERMANY) Fellowship in IVF ,Cleveland (USA)
Fellowship in Embryology NUH (Singapore) Gynaec. Endoscopic Surgeon.
IVF Specialist Director Ashakiran Hospital, Pune. Director Asha Fertility center, Pune.
Asist. Prof. MIMER Medical College, Pune.
Director The Birth Company IVF center, Aundh, Pune.
Founder member of Pune Association Of Gynanec. Endoscopic Suregeons (PAGES).
Executive Vice President POGS
Clinical Sec. POGS pune 2012-2013.
Treasurer POGS 2013-2014

Very important points to be noted

1. The doctor should personally take the consent or ask one responsible person to do so
2. Always cross verify the consent and information given before proceeding for the procedure
3. If possible attach both the parterns valid ID proof for age, address and marriage certificate

Consent for Artificial Insemination with Donor Semen

We, _____ and _____, being husband and wife and both of legal age, authorize Dr._____ to inseminate the wife artificially with semen of a donor (registration no._____; obtained from _____ semen bank) for achieving conception.

We understand that even though the insemination may be repeated as often as recommended by the doctor, there is no guarantee or assurance that pregnancy or a live birth will result.

We have also been told that the outcome of pregnancy may not be the same as those of the general pregnant population, for example in respect of abortion, multiple pregnancies, anomalies or complications of pregnancy or delivery.

We declare that we shall not attempt to find out the identity of the donor.

I, the husband, also declare that should my wife bear any child or children as a result of such insemination (s), such child or children shall be as my own and shall be my legal heir (s).

The procedure(s) carried out does (do) not ensure a positive result, nor do they guarantee a mentally and physically normal body. This consent holds good for all the cycles performed at the clinic.

Endorsement by the ART clinic

I/we have personally explained to _____and _____ the details and implications of his/her/their signing this consent/approval form, and made sure to the extent humanly possible that he/she/they understand these details and implications.

Name, Address and Signature of the Witness from the clinic

Signed:_____ (Husband) (Wife) _____

Name and Signature of the Doctor

Dated:

place :

Team POGS-AMOGS

Cultural Program Preparation

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