INDIAN SOCIETY OF PERINATOLOGY AND REPRODUCTIVE BIOLOGY

"Let's Say NO to Birth Defects"

NEWSLETTER

October 2020 – March 2021

Designed by Dr. D. Pushpalatha, Hyderabad
Past President, ISOPARB

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Editorial

Dear ISOPARBIANS,

Greetings from Patna

I am very glad to present the half yearly News Bulletin before you.

Amidst the pandemic, ISOPARBIANS have been doing a great job for our mothers and children. Apart from clinical meetings and webinars they have been updating us on different topics by their excellent write ups.

the best information on various topics by stalwarts of isoparb and activities done by them have been included here.

hope this year will be better than previous yearand we will meet physically in second half of 2021.

With a quote to end
"There is never a night for a problem that could defeat sunrise or hope"

Happy Reading

Dr. Amita Sinha
Executive Member ISOPARB
Vice President ISOPARB Patna Chapter

Dr. Meena Samant
Secretary General, ISOPARB

As the Covid pandemic enters into the 2nd peak, the e- platform becomes the new normal. Webinars and virtual meets have become the order of the day. We connected with our members near and far. International faculty connected.

This newsletter covers all those activities. Updates in perinatology have been included.

Happy readings.

Message

Dr. Usha Sharma
President ISOPARB

I feel priviledged I write the message in this newsletter for Bramhakumaris who's medical wing has launched this web series of Garbhsanskar-3D Antenatal care. This is an initiative for awareness towards holistic approach to pregnancy care of the woman and her baby to come. This not only takes care of the medical needs during pregnancy but also of her emotional and spiritual health thus resulting in stress free pregnancy. This care involves the family and the society in 3D-ANC, so it is the responsibility of the whole community to keep the pregnant mother happy, healthy and stress free. Garbh or pregnancy is the first sanskar among the 16 sanskars of the soul, which begins in the mother's womb. The pregnant woman nurtures the baby in her womb and prepares the baby for birth and future journey in this world. Babies can learn in their mother's womb is known from ancient times. In Mahabharat Abhimanyu learnt how to come out from a chakravyuh in his mother's womb.

We obstetricians and gynaecologists take care of the medical needs of the pregnant woman ensure safe delivery and postpartum period. Is that enough? No this is incomplete care of pregnancy. We need to incorporate holistic approach to pregnancy in the way of 3D ANC. This will have definitely have positive impact on the pregnancy and better perinatal outcome. Isoparb's mission is to improve on perinatal outcome. I congratulate Bramha Kumaris for coming up with a 3D web series for the benefit and improvement of health care of pregnant women all over the world. ISOPARB conveys its Best wishes for grand success of the web series.

Om Shanti

Dr Usha Sharma
President ISOPARB

Optimizing outcome in Hypertensive disorders of pregnancy

Prof (Dr) Sukumar Barik

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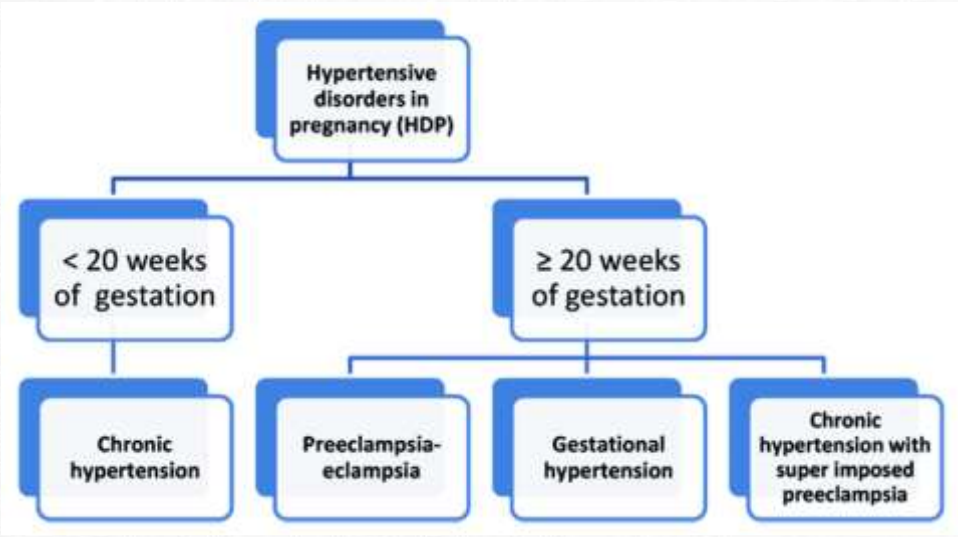
Introduction:

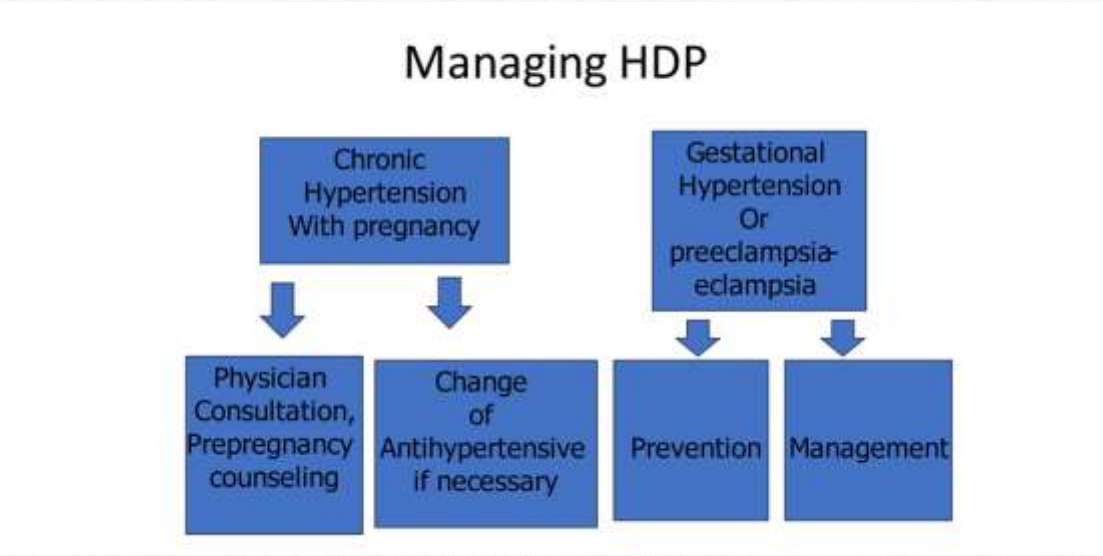
Hypertensive disorders of pregnancy (HDP) are a group of disorders complicating pregnancy. The term optimize means to make something as good as possible and outcome means something that follows as a result or consequence.

Current classification of HDP according to ACOG task force 2013.1



In simple terms, either someone has preexisting hypertension planning for pregnancy or become pregnant or the other group who develops the pregnancy specific unique, dreaded complication of pregnancy. In spite of significant research in this area, we are still not clear about the exact etiology of this problem. Consequently, the management of this condition (specially preeclampsia -eclampsia) is still evolving and needs careful vigilance throughout pregnancy and in postnatal period.

Broad aspects in management of HDP:



Chronic Hypertension:

In ideal situation, women with chronic hypertension should consult her physician before planning pregnancy, so that the control is optimal, condition of the end organs are known. Most importantly the antihypertensive may have to be modified if necessary. Angiotensin converting enzyme inhibitors or Angiotensin receptor blockers should be stopped as they increase the incidence of congenital abnormalities like pulmonary hypoplasia, joint contractures, hypocalvaria. It also can produce oligohydramnios, neonatal renal failure, hypotension, and fetal death. It is also advisable to stop thiazide or thiazide-like diuretics as an increased risk of congenital abnormalities and neonatal complications if these drugs are taken during pregnancy. It is advisable to change antihypertensives to the other types which are relatively safer during pregnancy. The target BP suggested is around135/85 mmHg. It is better to consider labetalol as the first line of drug. If labetalol is not suitable, nifedipine should be considered. If both labetalol and nifedipine not suitable then methyldopa can be considered. Methyldopa, a much-preferred drug several decades ago, lost its place because of delayed onset of action and several side effects like drowsiness, headache, lack of energy, weakness, dizziness, light headedness, fainting, nausea or vomiting. Prepregnancy counselling should also emphasize the need for antihypertensive modification, regular blood pressure check-up, folic acid supplementation, and aspirin 75–150 mg once daily from 12 weeks till term.

Prevention of preeclampsia:

Prevention of preeclampsia may be primary, secondary, or tertiary. Primary prevention involves avoiding pregnancy in women at high risk for preeclampsia, modifying lifestyles or improving nutrients intake in whole population in order to decrease the incidence of the disease. In areas where dietary calcium intake is low, calcium supplementation during pregnancy (at doses of 1.5–2.0 g elemental calcium/day) is recommended for the prevention of pre-eclampsia in all women, especially those at high risk of developing pre-eclampsia 2.

Secondary prevention is based on interruption of known pathophysiological mechanisms of the disease before its establishment. Recent efforts have focused on the selection of high-risk women and have proposed an effective intervention, as early as it is possible, in order to avoid the disease or its severe complications.

At booking visit clinical risk scoring is a good and an effective mean to define the high risk and medium risk category.

High risk factors:

- Hypertensive disease during a previous pregnancy
- Chronic kidney disease
- Systemic lupus erythematosus or antiphospholipid syndrome
- Type 1 or type 2 diabetes
- Chronic hypertension

If any high-risk factor is present, 75–150 mg of aspirin daily to be started from 12 weeks until the birth of the baby.

Moderate risk factors:

- First pregnancy
- Age 40 years or older
- Pregnancy interval of more than 10 years
- Body mass index (BMI) of 35 kg/m2 or more at first visit
- Family history of pre-eclampsia
- Multi-fetal pregnancy

NICE (2019)3 recommends pregnant women with more than 1 moderate risk factor for pre-eclampsia to take 75–150 mg of aspirin daily from 12 weeks until the birth of the baby.

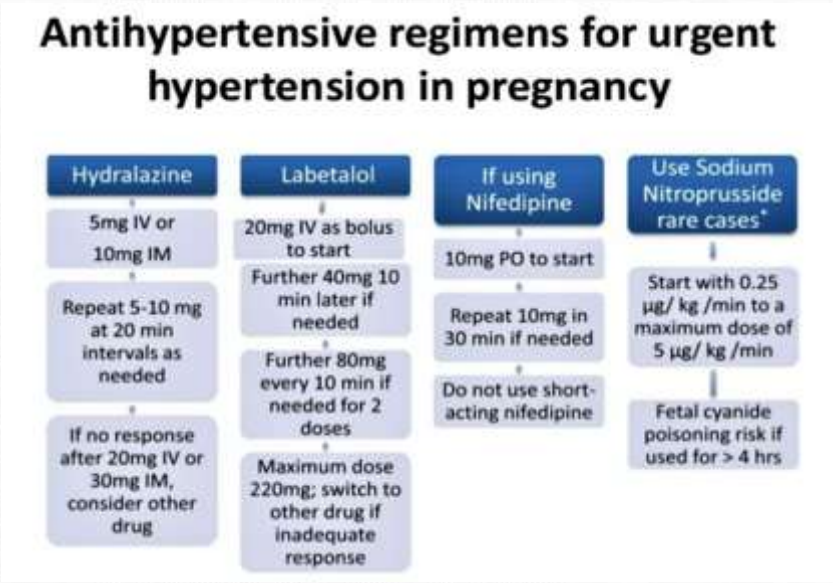
Tertiary prevention relies on using treatment to avoid preeclampsia complications. According to MAGPIE trial4 Magnesium sulphate halves the risk of eclampsia, and probably reduces the risk of maternal death. There do not appear to be substantive harmful effects to mother or baby in the short term.

Managing severe hypertension, severe pre-eclampsia or eclampsia:

Apart from regular maternal and fetal monitoring, several areas have to be addressed.

•Antihypertensives
•Anticonvulsant
•Corticosteroid
•High dependency unit or intensive care unit
•Fetal monitoring
•Delivery
•Neonatal care
•Postnatal care

Antihypertensives:
•Labetalol (oral or intravenous)
•Oral nifedipine
• Intravenous hydralazine



Anticonvulsants:
•Severe hypertension or severe preeclampsia has or previously had an eclamptic fit, give intravenous magnesium sulfate
•Collaborative Eclampsia Trial regimen
•Low dose regimen

MAGNESIUM SULPHATE

REGIMEN	LOADING DOSE	MAINTENANCE DOSE
Pritchard	4 gm IV over 3-4 min,10 gm deep IM	5gm IM in alternate buttocks 4 hourly
Zuspan	4 gm IV over 5-10 min	1-2 gm/hr IV infusion
Sibai	6gm IV over 20 min	2 gm/hr IV infusion

Low dose Magnesium sulphate regimen is shown is proven to be equally effective and safe .5 Recently questions has been raised about adapting the same 'gold standard' for all women. 6

Corticosteroid:

If early birth is considered likely within 7 days in women with pre-eclampsia, offer a course of antenatal corticosteroids.

High dependency unit or intensive care unit:

Consider using either the full PIERS or PREP-S validated risk prediction models to help guide decisions about the most appropriate place of care (such as the need for in utero transfer) and thresholds for intervention.

Fetal monitoring:

Chronic hypertension

•Ultrasound for fetal growth and amniotic fluid volume assessment, and umbilical artery doppler velocimetry at 28 weeks, 32 weeks and 36 weeks

• Cardiotocography if clinically indicated

Pre-eclampsia or severe gestational hypertension

•CTG at diagnosis of pre-eclampsia or severe gestational hypertension

•Conservative management - ultrasound for fetal growth and amniotic fluid volume assessment; umbilical artery doppler velocimetry.

Repeat CTG

•Change in fetal movement

•Vaginal bleeding

•Abdominal pain

•Deterioration in maternal condition

Delivery:

Caesarean section versus induction of labour - Choose mode of birth for women with severe hypertension, severe preeclampsia or eclampsia according to the clinical circumstances and the woman's preference

Postnatal care:

Postnatal care is equally in case of hypertensive disorders of pregnancy as significant life-threatening care may occur due to suboptimal care.

Comments:

At present we are very fortunate that significant development has made the management more effective and simpler.

We have powerful and effective antihypertensives, effective single drug anticonvulsant regimen, effective fetal monitoring tools especially ultrasonography including Doppler and Cardiotocography. At the same time, we have better laboratory investigation facilities, Intensive care facilities. However, careful vigilance and judicious use of the facilities is necessary. It should not be too much or too little.

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1.Task force Hypertension in pregnancy. ACOG 2013.

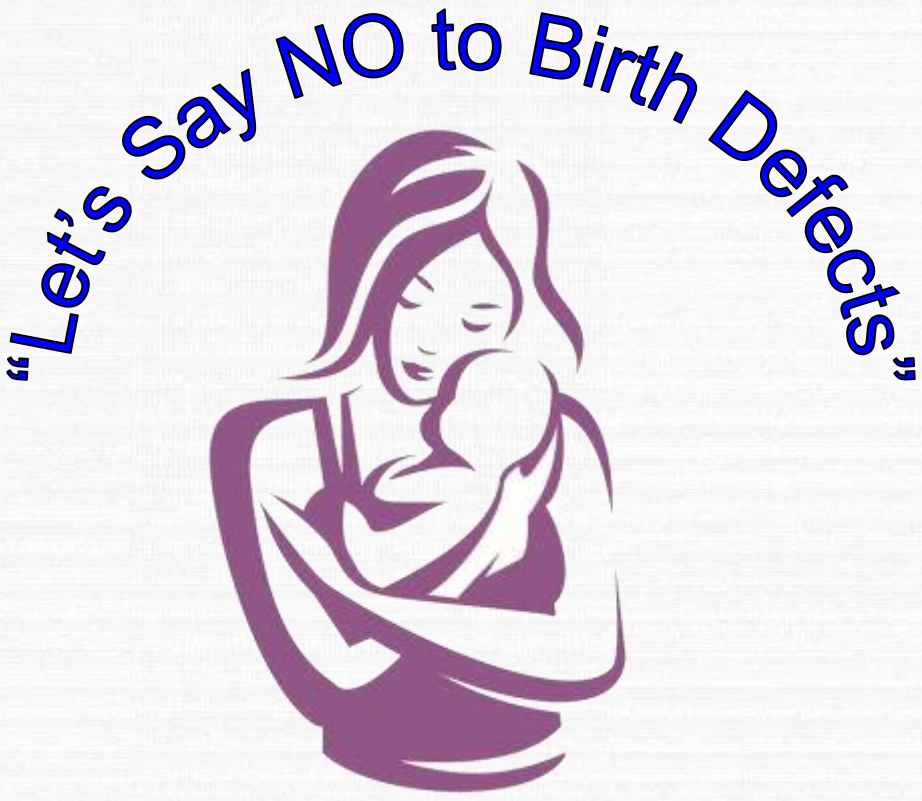
2. WHO recommendations for prevention and treatment of preeclampsia and eclampsia. 2011.

3.NICE guidelines. Hypertension in pregnancy: diagnosis and management. 25June 2019.

4.The Magpie trial Collaborative group. Do women with preeclampsia and their babies, benefit from magnesium sulphate? The Magpie trial: a randomised placebo-controlled trial. Lancet 2002; 359:1877-90.

5.Jana N, Dasgupta S, Das A K, Santra D, Samanta B. Experience of a low -dose magnesium sulfate regimen for the management of eclampsia over a decade. Int J Gynecol Obstet 2013; 122:13-7.

6.Jana, Barik S, Arora N. Magnesium sulfate regimes for eclampsia: should we adapt same gold standard for all women? BJOG 2018;125(7):909.



PERINATAL OUTCOME IN GDM

DR. RITA KUMARI JHA
MBBS, M.S., PhD, FICOG
ASSOCIATE PROFESSOR, VIMS PAWAPURI
President, ISOPARB Patna Chapter
Executive Member ISOPARB (2020-2022)
Executive Member POGS, Patna (2021-2022)
Chairperson Quiz Committee POGS (2021-2022)
Life member FOGSI, ISOPARB, IMS, IMA, SOVSI
Published many articles in National & State Journals
Contributed chapter in books of FOGSI

GDM is defined as any degree of glucose intolerance with the onset or first recognition during pregnancy with or without remission at the end of pregnancy.

It is fast becoming a major health problem in developing countries undergoing rapid changes in life style, dietary habits and body mass index. Recently, India has become capital of diabetes.

The link between GDM and negative perinatal outcome is well established and broadly accepted. Neonates born to women with diabetes are five times as likely to be still-born, three times as likely to die in their first month of life and twice as likely to have a major congenital anomaly. Perinatal prognosis depends on the type of diabetes and degree of glycemic control during pregnancy. The main perinatal risks are:

1. Macrosomia – it is defined as fetal weight more than 90th centile for that gestational age or estimated fetal weight equal to or more than 4 kg. It is the commonest abnormality (30 to 40%) and hallmark of untreated maternal diabetes. Besides body weight, amount of body fat co-relate significantly.

These babies are large, bloated or edematous, behavior is lethargic and cyanotic attacks appear to occur. They have a relatively small head as compared to trunk, broad shoulders and hairy pinna. These foetuses are at increased risk of childhood and adult obesity, besides an increased risk of sudden IUD. These babies are also at risk of labour complications leading to prolonged labour, shoulder dystocia with risk of brachial plexus and clavicular injuries. There is also risk of intrapartum asphyxia and increased incidence of instrumental delivery and cesarean section.

Pedersen, back in 1977 proposed the theory of hyperglycemic - hyperinsulinism, and according to this, maternal hyperglycemia leads to foetal hyperglycemia which in turn stimulates foetal pancreatic beta cells to hypertrophy resulting in hyperinsulinemia. This effect is seen after 20th week of gestation when foetal islet cells become capable of secreting insulin. Raised foetal insulin causes excessive foetal growth and deposition of subcutaneous fat in the baby, especially around shoulder and trunk region causing shoulder dystocia and subsequent birth trauma to the foetus. Insulin-like growth factors IGF I and II, are also involved in foetal growth and adiposity. Elevation of maternal free fatty acid leads to increased transfer to foetus thereby causing acceleration of triglyceride synthesis and adiposity. Hyperinsulinemia also causes foetal hepatomegaly, splenomegaly and cardiomegaly.

2. Unexplained IUD – used to occur commonly in the past with poor glycemic control in later weeks of pregnancy. 50% of still-births are due to associated conditions and rest 50% is unexplained. These unexplained cases are related to maternal hyperglycemia, elevated foetal erythropoietin levels, fetal cardiac dysfunction and oxidative stress.

3. IUGR – is associated with maternal systemic vasculopathy especially of long duration leading to utero placental insufficiency and thus IUGR.

4. Congenital malformation – occurs in about 6 to 10% of the cases. Major congenital anomalies are the leading cause of perinatal deaths. The main culprit for this is high glucose levels at the time of organogenesis resulting in these malformations. The commonest are related to CVS and CNS. These are:

•CNS – Neural tube defects including anencephaly, meningomyelocoele, encebhalocoele, spinabifida and hydrocephalous.

•CVS – Transposition of great vessels, atrial and ventricular septal defect, hypoplastic left heart, Fallot's tetralogy and truncus arteriosus.

Others are:

•Genitourinary – Renal agenesis, polycystic kidney and ureteric duplication.

•GIT defects – Duodenal, anal and rectal atresia

•Skeletal defect – Spinal abnormalities and caudal regression syndrome – it is a condition of sacral agenesis and hypoplasia of the caudal structures. It is otherwise very rare but incidence is very much increased in diabetes and its presence is almost specific for it.

Maternal glycosylated Hb levels in first trimester help to predict risk of occurrence of congenital anomalies. As seen in many studies it has been found that HbA1C

-- less than 7% - no greater risk than non-diabetic mother

-- 7 to 8.5% - risk of 5% for anomalies

-- More than 10% - risk rises to more than 20%

5. Neonatal hypoglycemia – it is defined as serum glucose level less than 35 to 40 mg/dl at birth or during first 12 hours of life. Baby becomes lethargic, fails to feed and sometimes there are seizures too. Premature infants suffer more than term infants.
It occurs immediately after birth due to persisting fetal hyperinsulinemia and stoppage of maternal glucose supply. It results in rapid fall of glucose in neonates.

6. Hypocalcemia and hypomagnesaemia – These occur within 72 hours of birth due to delayed post-natal parathyroid hormone regulation. Besides, long standing diabetic nephropathy leading to maternal magnesium loss may be the other cause.

7. Neonatal hyper bilirubinemia – Risk is increased due to preterm delivery, ineffective erythropoiesis, expanded red cell mass and relative immaturity of the hepatic bilirubin conjugation and excretion.

8. RDS – Poor glycemic control may delay foetal lung maturity because of late maturation of Type II alveolar cells. Risk is high in preterm babies. Besides, foetal hyperinsulinemia antagonizes action of cortisol causing diminished production of surfactant.

9. Polycythemia and hyper viscosity – Maternal and foetal hyperglycemia results in tissue hypoxia thus stimulating fetal erythropoietin. This may cause neo-natal stroke, necrotizing enterocolitis and sudden fetal death.

Long term risks:
1. Obesity
2. Type II diabetes
3. CVS disease
4. Impaired cognitive and motor function

To avoid these adverse perinatal outcomes, every patient must be counselled and screened in peri-conception period to make her aware of the importance of good glycemic control and management accordingly.

ISOPARB MID-TERM NATIONAL CONFERENCE- 4th October 2020

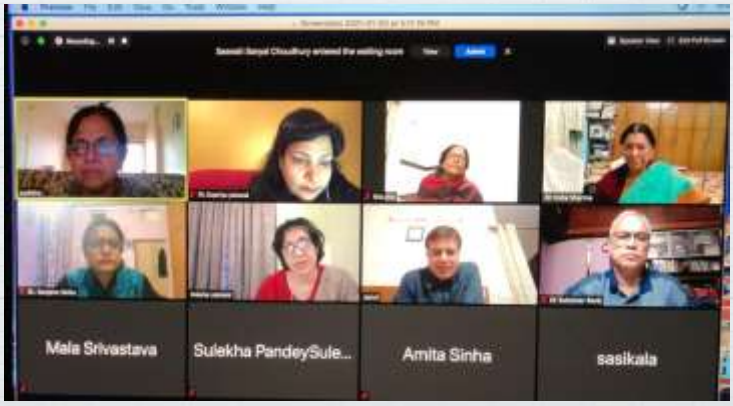
A very successful EVENT indeed. INSTALLATION CEREMONY of Dr. USHA SHARMA as NATIONAL PRESIDENT ISOPARB and her team on the Virtual platform. Thanks to the Outgoing President Dr. SUCHITRA PANDIT and her team for their contributions to ISOPARB. Dr. Manju Gita Mishra was the CHIEF GUEST and Dr. Kamal Buckshee Dr. Vandana Walvekar were GUESTS of HONOR. The prestigious Dr. Raj Kishori Jha ORATION was delivered by Dr. Santosh J. Karmarkar, Paediatric Surgeon, Founder President, Spina Bifida Foundation on Congenital Anamolies.

ISOPARB MID-TERM NATIONAL CONFERENCE

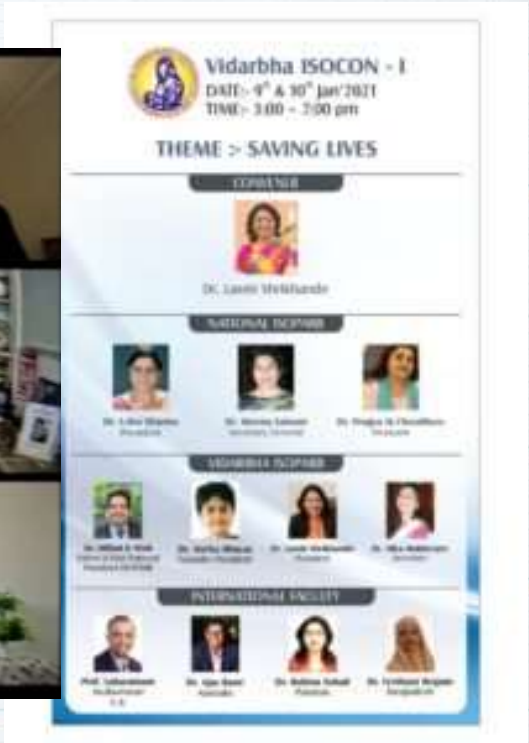
Webinar by **ISOPARB Mumbai Chapter** on **10th of November 2020**

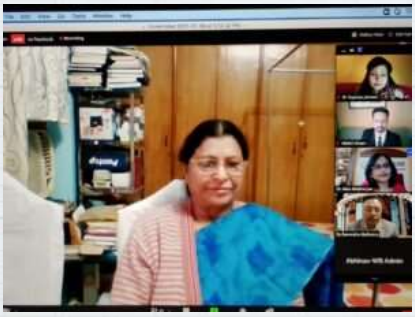
Glimpses of Webinar on Maternal and Perinatal Health on **2nd of January 2021.** Great deliberations by **Dr. Arulkumaran**, **Dr. Hiralal Konar**, **Dr. Shyamal**.

3rd January 2021 Meeting of ISOPARB Office bearers



9-10 January 2021 - First International conference of Vidarbha ISOPARB on the theme of saving lives**.** The esteemed international & national faculties contributed great scientific deliberations. Congratulations to team Vidharba for the great show….!





WEST UP CHAPTER OF ISOPARB ON AUSPICIOUS DAY OF LOHRI
Lohri celebrations - Prize distribution to Lohri Queen Winners of Poster Article Competition and many more. Glimpses of the event…..!

23rd January 2021 -Inaugural webinar of **ISOPARB Prayagraj chapter**. It was a star studded academic webinar.

Webinar on High Risk pregnancy and Neonatal Resuscitation by **ISOPARB Varanasi Chapter-28th Jan 2021**

Webinar on MATERNAL AND FETAL HEALTH was organized by ISOPARB on **30th of January 2021.** Dr. Sudip Chakravarty was CHIEF GUEST Dr.Sulekha Pandey guest of Honour .

Webinar on **11th of February 2021**

16th February 2021 - Webinar on Maternal and perinatal health conducted by **ISOPARB Patna Chapter.**

A very informative WEBINAR on **13th of March, 20211**

All About Vit D3 ! Webinar on 21st of March 2021

International woman's day- 8th March 2021, **Patna** chapter does health awareness camp at Pawa puri

ISOPARB in International Conferences

AO FOG ASIA & OCEANIA FEDERATION OF OBSTETRICS & GYNAECOLOGY

WebCME Organized by
Feto Maternal Medicine Committee of AOFOG in Association with Obstetric & Gynaecology Society Of Singapore
On "Patient care and safety in the pre and post COVID era"

Date: Sunday 28th March, 2021 | Time: 1300 – 1500 (Sri Lankan Standard Time : GMT+5.30)

Programme Details

Time	Topic	Speaker
1300 – 1305	Welcoming remarks and Introduction by President AOFOG	 Prof. Kazunori Ochiai (Japan) (President, AOFOG)
1305 - 1325	Key Note address. "Covid pandemic - Light is at the end of the Tunnel"	 Prof. Sir Sabaratnam Arulkumaran (UK) (Past President FIGO, RCOG, BMA)
Symposium on "Clinical Practices in O & G during the COVID 19 Pandemic"		
1325 - 1340	Antenatal and peripartum workflow during COVID-19 pandemic in Singapore	 Prof. Su Lin Lin (Singapore)
1340 - 1355	Clinical care and outcomes of pregnant women with COVID-19 during the pandemic in Singapore	 Prof. Citra Mattar (Singapore)
1355 - 1410	Japanese situation of pregnancy outcome and care of Covid19	 Prof. Makino Shintaro (Japan)
1410 - 1425	Surgical Safety Checklist in COVID Scenario	 Dr. Milind Shah (India)
1425 - 1445	Q & A	 Dr. Jaydeep Tank (India) (Deputy Secretary General, AOFOG)
1445 - 1455	Concluding remarks	by the Chairpersons

Royal College of Obstetricians & Gynaecologists

A Safe C-Section: best practice during COVID-19

lifebox


Chair: Dr. Ranee Thakar
St George's University of London


Professor Shahin Rahman Chowdhury
Holy Family Red Crescent Medical College & Hospital, Dhaka


Professor Tim Draycott
North Bristol NHS Trust, Bristol


Dr. Leonard Kabongo
Gobabis Hospital, Gobabis


Dr Adolfo Liao
Hospital Vila Santa Catarina, São Paulo


Dr. Meena Samant
Kurji Holy Family Hospital, Patna


Dr. Milind Shah
Naval Maternity & Nursing Home Ashakiran Sperm Bank & Infertility, Sion & Naval Maternity & Nursing Home Endoscopy & IVF Center, Mumbai

ISOPARB in International Conferences

ISOPARB in International Conferences

CHALLENGES TO SUSTAINING MATERNAL AND PERINATAL HEALTH DURING COVID PANDEMIC

NESOG 1989

XV INTERNATIONAL CONFERENCE OF
Nepal Society of Obstetricians and Gynaecologists (NESOG)

Hi Dr. U.D.P. Ratnasiri- (Sri Lanka) ,

It is our pleasure to announce that the XV International Conference of Nepal Society of Obstetricians and Gynecologists (NESOG) is going to be held on 2-3th April,2021. We cordially requests for your kind virtual

AOFOG session in NESOG Annual conference
3rd of April 2021 at 4.30pm to 5.30 pm Nepal time (GMT+5.45)

Time	Topic	Speaker
4.30 pm -4.35 pm	Opening remarks	Prof Ochiai Kazunori President AOFOG
4.35 pm -4.50 pm	Changing Paradigm of COVID-19 in Pregnancy"	Dr. Arundhati Gosavi Consultant, Division of Maternal-Fetal Medicine, Dept of Obstetrics and Gynecology, NUHS, Singapore
4.50 pm-5.05 pm	Direct or indirect effects of COVID on maternal/perinatal health.	Dr Clair Whitehead Consultant Obstetrician, Dept of Maternal Fetal Medicine, Royal Women's Hospital, Melbourne Australia
5.05 pm- 5.20 pm	"Safety during Delivery & Caesarean Section in COVID pandemic"?	Dr. Milind R. Shah India
5.20 pm -5.30 pm	Closing remarks	Dr. Rohana Hattotuwa Secretary General AOFOG

Theme "Challenges in sustaining maternal and perinatal health during COVID pandemic"

AOFOG session in NESOG Annual conference
3rd of April 2021 at 4.30pm to 5.30 pm Nepal time (GMT+5.45)

Our Past President : Dr. Milind shah

Completed successful tenure of Deputy Secretary General of FAOPS and got elevated as Hon. Treasurer.

Congrats!

The news of the untimely death of Dr Shanti H K Singh on 9th January 2021 filled us with immense sorrow, We lost a precious jewel in the crown of ISOPARB who served the organisation as Vice President and Founder President Patna Chapter.

She was a great teacher who had both passion and obsession for teaching, had a great fan following because of her interactive clinical teaching. She was an astute clinician and surgeon par excellence. She was frank and fearless and loved to take challenges. Above all she was a great human being.

She was born on 8th January 1947 in Village Pipariya of Kaimur District Bihar. She completed her higher secondary from Bankipur Girls High school in 1963 and joined as Premedical student In Prince of Wales Medical College, Patna from where she completed MBBS in 1969. After obtaining MS in Obstetrics and Gynaecology from Patna Medical College, she joined the institution as RSO and served as teaching faculty till 2005, when she retired as Associate Professor. During her tenure at Patna Medical college she established Centre of Excellence for tubal recanalisation. She was an accomplished laparoscopic surgeon and performed record number of laparoscopic sterilizations in rural camps.

She was an active member of Patna obstetric and gynaecological society and held the position of Secretary and President. She was the President of Association of Gynaecologists and Obstetricians of Bihar & Jharkhand (2019-2020), G C member of SOVSI Bihar & Jharkhand and active member of Patna Menopause society. She was conferred Life time achievement award by POGS in 2018.

She was a caring wife to her husband Dr H K Singh, loving mother to her son Dr Arun Kumar, Mr Arvind Kumar and daughter Mrs Anamika and affectionate mother-in-law to Dr Sushma, Mrs Rashmi and Mr Mukesh and doting grand mother to her grand children.

We shall always miss you and forever your memories will remain in our hearts

Rest in Peace! OM Shanti!

Management of preterm labour

Dr Laxmi Shrikhande
President-Vidarbha ISOPARB
Chairperson Designate ICOG

Dr Vinaya Deole
Consultant OB/GY, Nagpur

INTRODUCTION

Preterm labour is labour occurring between 20 to 37 weeks of gestation (one contraction or less in 10 min, cervical dilation < 2 cm and no evidence of cervical change over 2 hr of observation). Identifying and managing the women at risk of preterm labour decreases the chances of perinatal morbidity and mortality. It is difficult for patient to deal with psychological trauma caused by preterm birth. Management of preterm labour constitutes early recognition, management and follow up.

MANAGEMENT

MATERNAL NUTRITION

In India, majority of women neglect their nutrition due to illiteracy or misconceptions. Educating women and correcting their nutritional status help in minimising the sequelae of preterm labour. A study showed that women who had preterm delivery had higher intakes of retinol, but lower intakes of niacin, vitamin E, copper and magnesium than term delivery mothers1. Balanced diet is recommended for all pregnant women.

REST

Home rest or hospital rest has been widely debated by clinicians for threatened preterm labour. Cochrane study suggests that there is no evidence that bed rest could be beneficial2. Apart from added cost of hospital and clinician it may put added pressure on patient's family

VAGINAL PROGESTERONE

Progesterone acts by restricting prostaglandin production and maintaining uterine quiescence. In humans, progesterone levels are maintained until the end of pregnancy and in labour, but complex alterations in progesterone receptor activity result in a decline in progesterone receptor signalling at the time of labour onset3. RCOG 2019 recommends offering vaginal progesterone

to women between 16+0 to 24+0 weeks till 34 weeks of gestation who has history of preterm birth or Cervical length of 25 mm or less on transvaginal USG. There are multiple options of progesterone supplementation which includes natural micronized progesterone vaginal suppository 100, 200, 400 mg daily or vaginal gel 90 mg daily.

PROGESTERONE IM OR ORAL USE

17-alpha hydroxyprogesterone caproate (17α-OHPC) 250 mg weekly has been found to be helpful in preventing preterm labour. 17α-OHPC is also available as 500 mg depot in India which can be used once in 15 days.

CERVICAL CERCLAGE

Recommendation from RCOG 2019 suggests prophylactic cerclage for women between 16+0 to 24+0 weeks till 34 weeks of gestation who has cervical length of 25mm or less on transvaginal USG, or who has history of preterm pre labour rupture of membrane in previous pregnancy or any cervical trauma.

TOCOLYSIS

Tocolytics are used to suppress the uterine contractions. Calcium channel blockers have the ability to inhibit contractility in smooth muscle cells. RCOG recommends Nefidipine for tocolysis from 24+0 weeks of gestation who have intact membranes and are in preterm labour. If Nifedipine is contraindicated offer oxytocin receptor antagonist for tocolysis (2015). Do not offer betamimetics for tocolysis (2015).

Nifedipine comes in 10 mg and 20 mg tablet forms. A study showed low dose regime recieving 10 mg of oral Nifedipine stat then 5 mg every 15 min for first hour followed by 10 mg 6 hourly for 48 h and high dose regime of 20 mg of oral Nifedipine stat followed by 10 mg every 15 min in the first hour then maintenance dose was be 20 mg 6 hourly for 48 hours as tocolytic. The high dose of oral Nifedipine has no added advantage on low dose regimen rather Low dose regimen later causes less maternal side effects4. Recommended dose is 20 mg stat, followed by 10 mg three to four times a day adjusted according to uterine activity for upto 48 hrs.

ATOSIBAN

It is an oxytocin receptor antagonist. It inhibits hormones oxytocin and vasopressin. Atosiban is administered intravenously. An initial bolus dose (6.75 mg) by slow injection over 1 min, followed by continuous infusion of 300 mcg/min for 3 hours. Then decrease the infusion rate to 100 mcg/min for up to 45 hrs. The duration of the treatment must not exceed 48 hours. The total dose of therapy should preferably not exceed 330.75 mg of Atosiban.

CORTICOSTEROIDS

Administration of maternal corticosteroids in patients with preterm labour reduces RDS and other neonatal morbidities such as Intraventricular Hemorrhage (IVH) and Necrotizing Enterocolitis (NEC) as well as overall neonatal mortality. It crosses the placenta and reach the fetal lung and stimulates the surfactant synthesis and maturation of other systems.

Offer maternal corticosteroids to women between 24 to 34 weeks who are in suspected, diagnosed or established preterm labour. Treatment should consist of either two 12-mg doses of Betamethasone given intramuscularly 24 hours apart or four 6-mg doses of Dexamethasone administered intramuscularly every 12 hours5. A single repeat course of antenatal corticosteroids should be considered in women whose prior dose was administered 14 days prior and who are less than 34 0/7 weeks of gestation at risk of preterm delivery within 7 days6.

MAGNESIUM SULPHATE FOR NEUROPROTECTION

Magnesium sulphate reduces the harmful effects of hypoxic brain injury by blocking N-methyl-D-aspartic acid (NMDA) receptors, by reducing calcium influx into cells. It offers tissue protection against free radical. It has anti apoptotic actions. It also attenuates cytokine or excitatory amino acid induced cell damage. It acts as a vasodialator and reduces vascular instability preventing hypoxic damage. Magnesium complex with adenosine triphosphate is required for the activity of many functional proteins, including membrane transporters, ion pumps and a broad array of other enzymes.

Consider intravenous magnesium sulphate for neuroprotection of baby in woman between 30 to 33+6 weeks of gestation who is in established preterm labour.

RCOG recommends 4gm IV bolus magnesium sulphate over 15 mins, followed by IV infusion of 1gm /hr until birth or for 24hrs whichever is sooner. Keeping in mind to monitor for clinical signs of magnesium toxicity. Monitor blood pressure, respiratory rate, pulse and deep tendon reflexes.

ANTIBIOTICS

Infections in uterus or cervix even if asymptomatic may cause preterm labour. Use of antibiotics is not beneficial in women with preterm labour with intact membranes. Cochrane study suggests not to give routine antibiotics in women with preterm labour with intact membranes7.

INTRAPARTUM AND POST DELIVERY CARE

Despite all the efforts in unfavourable circumstances, woman may deliver prematurely. Intrapartum fetal monitoring with CTG, risk of breech head entrapment, caution in use of vaccum before 34 weeks should be taken care of. ACOG recommends delayed cord clamping in preterm babies. Optimal NICU support helps in increasing the take home baby rates.

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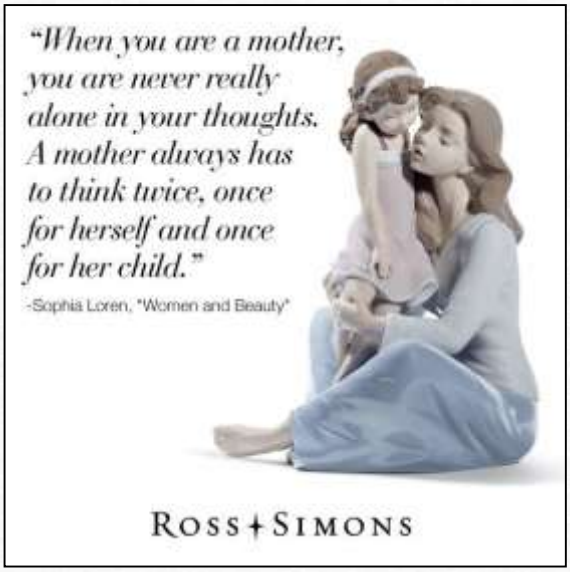

Quiz master
Dr Ranjana Sinha
Joint Secretary, ISOPARB

Q.1.Swansea criteria is used for diagnosis of

a. HELLP Syndrome

b. AFLP

c. ARDS

d. Septic Shock

Q 2. Which of the following is true concerning management of overt maternal diabetes in the second trimester?

a. should undergo amniocentesis

b. should undergo a fetal echocardiogram

c. Have higher rates of chromosimal anamolies

d. should be offered genetic screening if more than 35 years of age

Q 3. All except which of the following is true regarding hypocalcemia in newborn is accurate?

a.Defined as less than 9 mg/ dl

b. etiology is unexplained

c. may be related to premature birth

d. seen more often with strict glucose control

Q 4. In which of the following scenarios is anticoagulation recommended in the setting of antiphospholip is antibody syndrome ?

a. History of thromboembolic event

b. History of early onset preeclampsia

c. History of thromboembolic event and adverse pregnancy outcomed

d. All of the above

Vaginal Birth After Caesarean Section

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With the well documented rise in caesarean section rates globally , in this era of modern obstetrics ,it is not uncommon to have women with succeeding pregnancies , posing a challenge to the pregnancy care and course of delivery in presence of an uterine scar .This induces us into an insight of some major questions viz.

"IS ONCE A CAESAREAN ALWAYS A CAESAREAN ?"

"IS IT POSSIBLE , FEASIBLE , AND AGREEABLE TO HAVE A TRIAL OF LABOUR?"

Likelihood of success of VBAC are more with --BMI <30, Age < 40 yrs ,Fetal wt. <4 kg ,Gestational age <40 wks.,High Bishop Score on admission ,Vertex presentation with engaged presenting part, h/o past vaginal delivery, spontaneous onset of labour.

Non suitable factors for VBAC are— Post datism , Last child birth <1 yr, Age > 40 yrs , obesity, poor Bishop score , Lower uterine segment myometrial thickness 0.6-2 mm.

Contraindications to VBAC are—CPD, Big baby ,Severe Oligoamnios , Previous Uterine Rupture ,Complicated Uterine scars ,Contracted Pelvis , Placenta Previa & PAS, Malpresentations.

Likelihood of failure of VBAC with factors in decision on past caesarean section are—Dystocia at 8 cm dilatation ,Failed instrumental delivery , Prolonged 2nd stage of labour, Failed induction of labour ,very small baby , Poor healing , Indefinite suturing techniques.

Prediction Scores for successful VBAC have been suggested based on –Bishops Score,Previous vaginal delivery ,Age , BMI. Several scoring systems have come on –FLAMM model (1997) ,Integer Score ,Egyptian Score ,Weinsten Score etc

Essentials for VBAC are –Willing patient , Skilled Experienced Obstetrician , Stand by Availability of Good Anaesthetist and Operation Theatre , Close Monitoring Facility in Labour , knowledgeable Pediatrician , Blood Availability.

Induction of Labour for VBAC is generally not advocated and if taken on , it could be by –Amniotomy , Intracervical Foley s catheter .Augmentation of Labour by Oxytocin increases 2-3x risk of uterine scar rupture.

Risks of Trial of Labour and VBAC are ---Uterine Scar Dehiscence and Rupture, Severe Hemorrhage and associated sequalae , and Intrauterine Fetal Compromise and Demise.

Signs of Threatened Dehiscence and rupture are—Loss of Abdominal Contour, Scar Tenderness, Fetal Heart Decelarations and absence, Abnormal vaginal bleeding , Reduced Uterine Contractions , Collapsing Maternal vitals , Hematuria.

Perinatal death 0f 0.04% ,maternal death of 0.004 %,Transient Tachypnoea of Newborn of 3%,intrapartum rupture of 0.2 % to 0.5%, post natal detection of scar dehiscence of 0.1 % has been noted. 70-75% of TOLAC have been said to be successful. Scar rupture of 0.02 % in Elective Repeat Caeasarean section is reported. 90% of scar ruptures happen intrapartum,, peaking at 4-5 cm cervical dilatation . From suspected dehiscence , fetal delivery within 7-18 mts is said to deliver a non hypoxic fetus. With a rapid shifting from labour room to operating theatre and quick delivery of the fetus by emergency caesarean section under suitable anaesthesia ,in the presence of a good paediatrician, with good suturing of ruptured uterine segment and if necessary hysterectomy, with prevention of hemorrhagic shock , blood transfusion as necessary , and a meticulous postoperative management are the rapid sequence of events that save the mother and the new born.

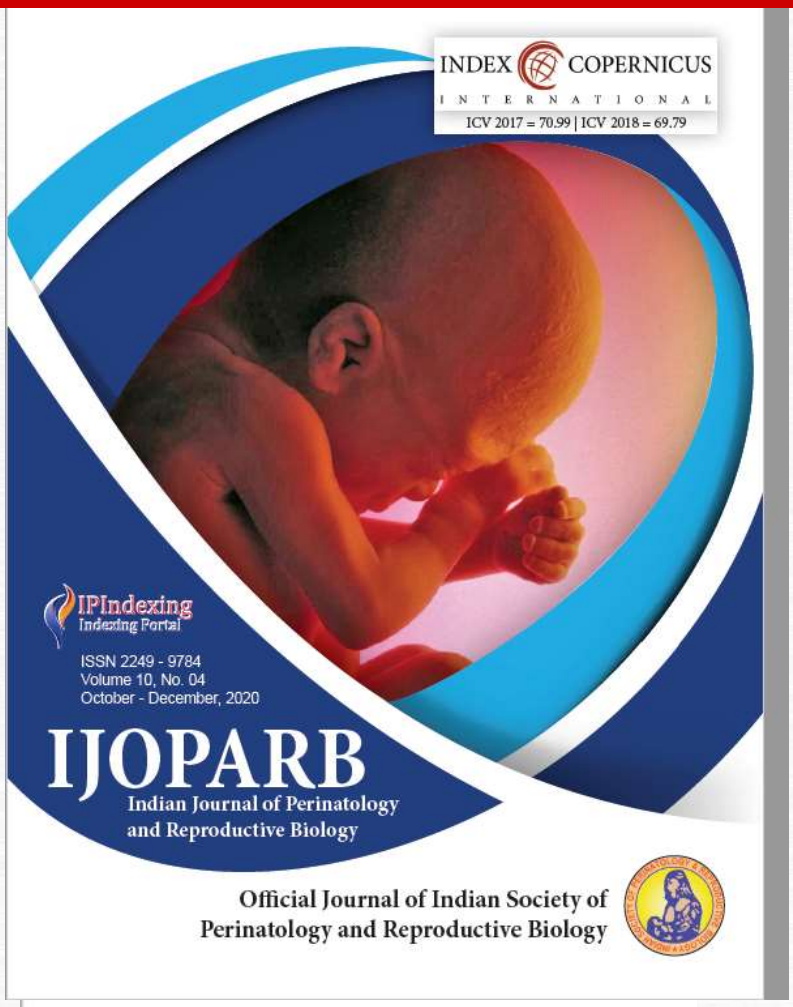
Prenatal, Antenatal, Antepartum , Intarpartum and Postpartum Counseling And Perfect Documentation is an integral part of TOLAC & VBAC .Close monitoring and High degree of suspicion and complete involvement of patient and her close relatives is instrumental in managing legal tangles.

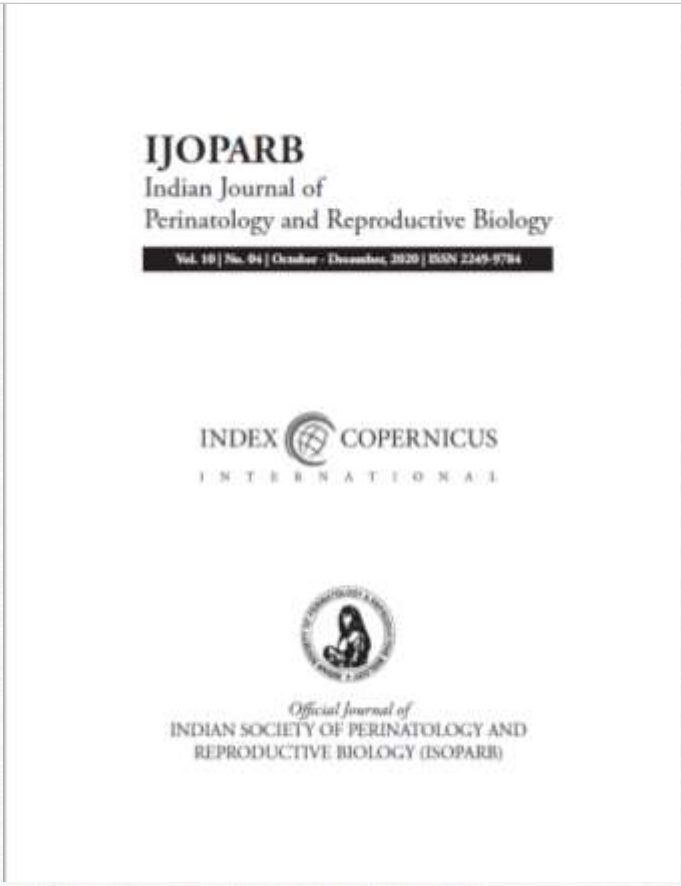
Obstetrics is a speciality of individualized , well informed, highly skilled decision making. Avoiding the first caesarean section is the key to avoiding the situation of TOLAC and VBAC with its various perspectives.

Answers to QUIZ

1. B 2.b 3. a 4. a

Our ISOPARB Journal





Optimizing Postpartum Care : The need Of The Hour

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The weeks following birth are a critical period for a woman and her infant, and its importance has given the name “the fourth trimester” to postpartum period. It is seen that one fifth of the pregnancy related death occur between 7 and 42 days postpartum and one third of pregnancy-related deaths occur between 1 week and 1 year after delivery.Pregnancy-associated deaths due to self-harm or substance misuse are showing increasing trends. Other than the high risk of morbidity and mortality, this “fourth trimester” can present considerable challenges for women, including lack of sleep, fatigue, pain, breastfeeding difficulties, stress, new onset or exacerbation of mental health disorders, lack of sexual desire, and urinary incontinence.

So, to optimize the health of women and infants, postpartum care should become an ongoing process and taking this on account ACOG has released a consensus bundle on postpartum care. This article is a simplified and concise approach of the ACOG consensus bundle tailored with options available in our country.

It starts with the readiness of the women and making her aware of postpartum period and this deal with the recognition and prevention to response and report by care givers, clinics and women also.

READINESS

Every Woman

1.Engages with a health care provider during prenatal care to develop a comprehensive personalized postpartum care plan. The plan includes designation of a postpartum medical home for the period between birth and the comprehensive postpartum visit.

2. Receives woman-centered counseling and anticipatory guidance regarding medical recommendations for breastfeeding to make an informed feeding decision.

3. Receives woman-centered counseling regarding medical recommendations for birth spacing and the range of available contraceptive options.
4. Identifies a postpartum care team, inclusive of friends and family, to provide medical, material, and social support in the weeks after birth.

Every Health Care Provider
5. Ensures that each woman has a documented postpartum care plan and care team identified in the prenatal period

6. Develops and maintains a working knowledge of evidence-based evaluation and management of common issues facing the mother–infant dyad.
Every Clinical Setting

7. Develops and optimizes models of woman-centered postpartum care and education, using adult learning principles when possible and embracing the diversity of family structures, cultural traditions, and parenting practices.

8. Develops systems to connect families with community resources for medical follow up and social and material support

9. Optimizes counseling models, clinical protocols and reimbursement options to enable timely access to desired contraception.

10. Develops systems to ensure timely, relevant communication between inpatient and outpatient health care professionals.

11. Develops protocols for screening and treatment for postpartum concerns, including depression and substance use disorders, and establishes relationships with local specialists for comanagement or referral.

This step is very important as it helps to ensure answers of many questions woman can have in her mind. Having a proper postpartum care plan in antenatal period not only helps the woman but also to the caregiver as he or she can prepare her patient for postpartum care accordingly. Like,Where she is going to stay during her postpartum period can give us an insight of her compliance of OPD visits. In India it is a very common practice that the pregnant lady can move to her maternal home for her delivery and postpartum care, so if we are aware of this situation we can plan accordingly and ask her or her

relatives regarding any specific issue she has to deal in her postpartum.
Breastfeeding is an important aspect of postpartum care for both mother and neonate and talking about this in advance can prevent a mother from pain and infection and a neonate from results of many unhealthy practices. An exclusive breast-feeding can provide contraception but one must be aware that this is not for forever.The contraceptive choices has different aspects and a woman must be aware of all, the woman should have complete freedom to choose according to her comforts and cultural believes, so ask her to visit the family planning clinic in her antenatal period only so, she can discuss with her family and support to make an informed choice.

As a health care provider it is our duty to ensure the wellbeing of our patients and this can be achieved by plans that consider each woman's strengths and vulnerabilities. Few need to extra cautious for women with substance use disorder, new mothers dealing with any mental health conditions, differently abled mothers or mothers with pre-existing conditions. So, this is important that health care professionals who interact with recently pregnant women should be aware of symptoms that may presage morbid complications, common issues such as breastfeeding difficulties and postpartum depression. Health care professionals should understand medication selection in lactation to avoid iatrogenic disruption of breastfeeding.

Health care centre should provide guidance, that should adhere to health literacy principles and incorporate cultural factors such as ethnicity, language and income level. Postpartum education should be tailored for contexts such as mothers of infants that remain hospitalized, stillbirth, adoption, and various discharge settings, including shelters, halfway houses, and the criminal justice system. Timely information and conversation is important to ensure contraception (particularly LARC), diagnosis of elements which can worsen with time, to make a proper referral of mother or baby and a proper designed discharge summary can fill this gap and can make a huge difference. It is also seen that if we routinely screen for sensitive issues as depression, substance use, violence, or incontinence, we can timely identify unmet health needs, and act accordingly. We should have fix protocol for patient referral and screening. The very ambitious project of the Govt. of India, LAQSHYA, is trying to develop particular SOPs for every labour room and maternity ward in our country.

RECOGNITION AND PREVENTION

Every Woman

12. Is respected as the expert in her own needs and is empowered to trust her instincts and access care as early and frequently as needed in the weeks after birth.

13. Reviews her postpartum care plan with her health care provider before discharge from maternity care, revising as needed. The care plan should include a list of warning signs and responses for life-threatening postpartum complications, a list of lactation support resources, a “first call” phone number for her postpartum medical home, including a contact for breastfeeding issues, and the time and date of postpartum visits

14. Attends a comprehensive postpartum visit, scheduled at an interval tailored to the needs of the mother–infant dyad

Every Clinical Setting

15. Determines guidelines for patient education, discharge from inpatient maternity care and indications for early postpartum visits.

16. Coordinates ongoing care between inpatient and outpatient settings and between the maternal and infant health care professionals to facilitate the health and wellbeing of the dyad. This includes coordination for issues related to breastfeeding.

17. Screens for and treats common morbidities, including mental health issues, smoking, and substance use, as well as concerns such as unstable housing and food insecurity

18. Ensures that each woman has identified a source of ongoing primary care.

This is to recognise a pregnant woman as the most important part of birth giving. It ensures and gives her a confidence that she is important as well as responsible for the health of her and the newborn. Health care professionals can encourage and empower each woman to trust her instincts regarding her physical and emotional needs. The American College of Obstetricians and Gynaecologists recommends that all women have contact with a maternal health care provider within the first 3 weeks postpartum and ongoing care as needed, culminating in a comprehensive postpartum visit no later than 12 weeks after birth. The discharge slip should must contain the early symptoms of morbid condition in written, so the care seeker can act promptly.Like, information regarding puerperal sepsis, secondary haemorrhage, impending eclampsia etc.Readiness for discharge includes both the mother’s physical and emotional health and her readiness to care for herself and her infant.Guidelines for early postpartum visits should consider chronic conditions (ie, hypertensive disorders, diabetes, seizure disorders, substance use disorder) and risk for postpartum issues such as wound complications, breast- feeding difficulties, or postpartum depression

RESPONSE

Every Clinical Setting

19. Implements treatment protocols and either provides desired care or facilitates timely referral to an appropriate resource. Whenever feasible, a warm hand-off is provided, via a face-to-face introduction to the specialist to whom the patient is being referred.

Every Health Care Provider

20. Develops strategies to reach women who do not attend the comprehensive postpartum visit.

21.. Every identified need is assessed for acuity using a tiered response. If life-threatening, the identifying health care provider facilitates transportation to an appropriate facility for immediate care

In India, LAQSHYA support the idea that when referrals are made or an ambulance is called, follow-up mechanisms are needed to assure that the woman attended the visit. Postpartum home visiting services can also address perinatal depression, provide breastfeeding education, vaccinations and related referral and support safe parenting practices. The Govt of India is trying to strengthen the home visits with the help of ASHA in rural set-up. Culturally appropriate, patient centred counselling enables women to make informed decisions in multiple postpartum domains. Addressing these intersecting issues requires respect for each woman's values and preferences. Health care professionals are experts in the clinical evidence and knowledge, whereas the patients are experts in their own experiences and what matters most to them. So, we need to bridge the gap between evidence based care and the socio-cultural believes.

REPORTING

Every Health System

22. Convenes inpatient and outpatient professionals to share successful strategies and identify opportunities for improvement.

23. Identifies and monitors postpartum quality measures, such as postpartum emergency department utilization and readmission rates.

24.Conducts quality improvement projects to reduce preventable postpartum morbidity.

25. Collaborates with the community to maintain a clearinghouse for resources that address the needs of women during the postpartum period.

Measuring postpartum outcomes as a factor of postpartum care is important for preference ensitive decisions. Such measures can be difficult to capture, due to lack of data. The data of success as well as failure in postpartum care is important to improvise. The information collected should be clear and crisp and that needs a predesigned performa. Every health care centre should do audits for their data collection program like, data were filled on right time, information were collected from right person, documentation was done by the right person etc because a single miss can misguide the result. Reporting after data collection is important because every culture and geography has its very own preferences, strengths and weaknesses, so, if we are not reporting we are doing our own harm.

In conclusion, These bundle elements provided by ACOG is a frame- work to improve health and well-being during this critical transition in women's lives. Other than these, there are few more points that ACOG mentioned but they are not so relevant in our context.The Indian medical professionals deal with a very unique patient pool and system so, the need of customised practice is important.

Laughter side