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Newsletter

July 2018 | Issue 7

"Labour"

President's Message

Dear FOGSIans

Greetings!

Wishing you a very happy Doctors day, each year we do celebrate doctors day reminding ourselves about our own responsibilities as key healthcare providers and also build up strong bond between the society and our own fraternity. Various activities are planned on this day, but to build up any strong bond, one needs to work on everyday, through our service, our interactions, our love and sympathy for all those who need us. This really bring a lot of pressure on us as far as our work, our own time management and our own health is concerned. We need to learn to share responsibilities and invest in good staff, which is easier said than done, but without that we will never be able provide Quality care nor will get quality time for ourselves and our families.

This month is devoted to promotion of Vaginal delivery. It has been over the years that lesser and lesser number of women are delivering vaginally, there are many contributory factors for this and need a thorough introspection, I firmly believe that we obstetricians are not the ones to be responsible for this but we definitely should be the ones encouraging vaginal birth especially all for the primis.

A very well saying goes like-

"The knowledge of how to give birth without outside interventions lies deep within each woman. Successful childbirth depends on an acceptance of the process."

Another very important factor is birth preparedness and that cannot happen in a day or few visits, pregnant women require constant communication and encouragement and tips for preparing them and family mentally for the delivering vaginally. Women also have a lot of fear about delivering vaginally, it is our responsibility that we should offer all help to build up confidence and prepare them for vaginal delivery. This year FOGSI's ADBHUT MATRUTVA initiative is a unique programme based on garbh sanskar and fetal origin of Adult diseases. It takes care of all these issues, right from preconception care to antenatal, intranatal to post partum care along with building patient doctor relationship, bonding of the baby and the mother, and building confidence in vaginal birth and neurocognitive growth of the baby.

Please don't forget to download Digital FOGSI,healthE India App and see your practice transforming and also enrol yourself into the FOGSI social security and FOGSI indemnity schemes.

God bless you.

Warm regards
Lots of Love
Om Shanti
Jaideep Malhotra

UPCOMING

FOGSI's Nirbhaya Walk

Gynaecologists of India Walk for Women Respect and Empowerment

Who is Nirbhaya?

Nirbhaya stands for woman empowerment, woman who stood against atrocities of society and proved her strength. She as a single persons raised the sensitivities of society and organizations and public towards inhuman treatment meted out to Women in society.

FOGSI to show solidarity to the cause of empowerment of women organized a march on 2nd June 2018 during FIWHS held in Hotel Leela Ambience, by President Jaideep Malhotra and organising Chairperson Dr Narendra Malhotra.

Nirbhaya walk was a night celebrating Empowerment, Strength, Love, Positivity togetherness and immense Unity. Nirbhaya walk started with invocation of Ganesha by great violin player Sunita Bhuyan and followed by walk by Dr Jaideep Malhotra and Mother of Nirbhaya Mrs Asha Devi who profusely thanked efforts of our President Dr Jaideep Malhotra.

It had walk by Sakshi Vidyarthi who was sexually molested and was bold enough to be open about it and not hide the facts and brought culprit to the stage of conviction and punishment. Mrs Udita Tyagi (Femina Mrs World 2011) also graced the occasion and expressed her views on cleanliness and Go Green.

This was followed by walks by Dr Ragini Singh and Dr Anurita Singh who fought their calamities of physical problems remains positive and came up and displayed their strength.

Next on stage came the Unsung heroines/Heroes of FOGSI who despite negativism of Society have been providing excellent services with the help of NGOs and their own efforts. They were Dr Sangita Kumari, Dr Sabita Dixit, Dr Amrita Rai, Dr Pratiksha Katyar. Finale by NIINE team pioneer of team of Payal and Amar Tulsiyan.

On the whole Dr Jaideep Malhotra and Dr Narendra Malhotra deserve all the praise for this unique effort and creating awareness. FOGSIANS are working on their own and being a strong support for Women Empowerment.

(Master of Ceremonies of NIRBHAYA WALK)

Dr Maninder Ahuja, Dr Archana Verma, Dr Neharika Malhotra Bora

Premarital Counselling

Dr Kiran Chandna

Premarital counselling is a therapy that prepares couple for marriage, helps to identify weaknesses and helps couple to have stable and satisfactory married life. It enables the couple to identify and discuss potential areas of conflicts such as money, sex, children, family issues.

Components of premarital counselling are compatibility with partner, responsible sexual behaviour and medical aspect.

The couple should be made aware that marriage is based on love and respect for one another, keeping needs of other before needs of self.

WHO recommends couples entering matrimony should undergo counselling and screening to confirm or infirm the presence of specific diseases including STD and HIV.

It is desirable that couple gets medically screened for medical disorders before cohabitation. Some pathological labs offer package of investigations (medical kundli milaan) to identify genetic and infectious diseases

Couple should be screened for haemoglobinopathy, ABO rh compatibility, infectious diseases like HIV, Hepatitis B, C syphilis, rubella, genetic disorders, diabetes, hypertension, anaemia, obesity and under nutrition.

Counselling should include imparting knowledge about reproductive biology and physiology of pregnancy, contraception, safe sex practices and ill effects of substance abuse.

Intervention to be done if any of screening test is positive

- Vaccination of eligible couples for rubella and HPV.
- Genetic counselling for patients with haemoglobinopathies and genetic disorders.
- Cessation of smoking and alcohol before pregnancy
- Referral of couple in case of chronic diseases to specialists to ensure good control of disease prior to marriage and pregnancy.
- Optimise weight in case of obesity and under nutrition.
- Folic acid supplementation before pregnancy.
- Supplementation of iron in iron deficiency anaemia.
- Replacement of teratogenic medicine with safer alternative months before pregnancy.

To conclude premarital counselling and screening is important intervention which mentally and physically prepares couple entering in matrimony and enable them to share stable and responsible relationship.

Dr Gracy from Kaloor Conducted a Wonderful Premarital Counselling Session in June 2018.

Induction of Labour with Misoprostol Drug Review

Dr Komal N Chavan

Induction of labour is carried out worldwide for a broad range of maternal and foetal indications, so as to improve pregnancy outcomes. Oral misoprostol has been widely discussed and studied as a method of labour induction. It is recommended for this indication by the World Health Organization (WHO), the International Federation of Gynaecology and Obstetrics (FIGO), and the Society of Obstetricians and Gynaecologists of Canada (SOGC).

WHO guidelines address induction of labour with misoprostol in highly selected situations such as severe pre-eclampsia or eclampsia when the cervix is unfavourable, and a caesarean is unsafe, or the baby is too premature to survive, or there is in-utero foetal death in woman who have decreasing platelets and no spontaneous labour after four weeks.

In many countries misoprostol a synthetic prostaglandin E1 analogue is only approved for prevention and treatment of NSAID-associated peptic ulcers and management of medical abortion. However, it has been extensively studied and widely used for obstetric and gynaecological indications, such as pre-induction cervical ripening and labour induction (3rd trimester, especially at low Bishop scores), 2nd trimester termination of pregnancy and primary postpartum haemorrhage. It can be administered through different routes (sublingual, oral, vaginal and rectal). Misoprostol is absorbed faster orally than vaginally, with higher peak serum level, but vaginally absorbed serum levels are more prolonged. Vaginal misoprostol was present in the circulation longer than oral misoprostol and had a greater area under curve at 240 minutes. Its oral use may be convenient, but high doses could cause uterine hyperstimulation and uterine rupture. Vaginal use of lower doses seems to be associated with less uterine hyperstimulation and is associated with fewer side effects, as nausea and diarrhoea.

Cochrane Review (76 trials) compared intravaginal misoprostol with placebo, vaginal prostaglandins (23 trials with 3282 participants), intracervical prostaglandins (13 trials with 1810 participants), and oxytocin (14 trials with 1767 participants). Misoprostol was associated with increased cervical ripening after 12 and 24 hours and reduced failure to achieve vaginal delivery within 24 hours in all comparisons. Epidural analgesia was used less frequently with misoprostol in comparison with the other vaginal prostaglandins, and oxytocin. Oxytocin augmentation was reduced with misoprostol versus vaginal and intracervical prostaglandins. There was a trend towards a reduction in the need for caesarean sections, but results showed differences among trials.

Pharmacokinetic profiles of orally, rectally, and vaginally administered misoprostol tablets in pregnant women were compared by Cochrane review (37 trials). Different oral regimens of misoprostol seemed to be less effective than vaginal preparation. More women who used oral misoprostol did not achieve vaginal delivery within 24 hours compared with those who used vaginal misoprostol. The caesarean section rate was lower in the oral misoprostol group compared with the vaginal misoprostol group. A RCT compared oral (100 microg) versus vaginal misoprostol (25 microg) given every 3-4 hours for induction and another compared the efficacy of 100 microg orally with 50 microg vaginally misoprostol every 6 hours for 48 hours for induction of labour at term. The median induction to vaginal delivery time in the oral group (14.3 h) was not significantly different from that of the vaginal group (15.8 h). There was a trend towards fewer admissions to neonatal intensive care units with low-dosage regimens of misoprostol. No differences in perinatal or maternal outcome were shown.

A non-blinded RCT compared the efficacy of repeated sublingual (50 microg) versus oral misoprostol (100 microg). Both schedules had the same efficacy and safety profile. The women preferred the oral to sublingual route. Also, comparison of buccal misoprostol with intravaginal misoprostol for cervical ripening showed the efficacy was similar between the two groups, but the incidence of tachysystole was higher in the buccal group than in the vaginal group. Therefore, misoprostol has route-dependent pharmacokinetics and is best absorbed when administered vaginally.

A recently completed UK National Institute of Health Research (NIHR) 2017 funded network and cost-effectiveness analysis included 31 induction regimes evaluated in 611 trials with over 100000 trial participants. Titrated low-dose (25 mcg) oral misoprostol in a solution form was identified as likely to be the most cost-effective method, and also had a favourable safety profile. This recent evidence is in contrast with the current National Institute for Health and Care Excellence (NICE) guidelines that do not recommend the use of misoprostol, citing that misoprostol is not labelled for labour induction, and that accurate concentrations and reliable drug delivery cannot be guaranteed given that low-dose formulations are not available.

Oral misoprostol for induction of labour is rapidly gaining popularity in resource-limited settings because it is cheap, stable at ambient temperatures, and logistically easier to administer compared to dinoprostone and oxytocin. Hence, the judicious use of misoprostol for obstetric and gynaecological indications, in appropriate clinical settings, hope to increase in successful vaginal deliveries and reduce adverse maternal and foetal outcomes.

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Water birth

Dr Shraddha Agrawal

Water birth is a birth in which the mother is supported in birthing pool so that the child is delivered in the warm water.

Giving birth in water is popular method for pain relief during labour. Birth pool works on the same principle as a bath tub but are distinct from them due to buoyancy and freedom of movement, factors deemed to be important in labour. The temperature of water should not exceed 37.5 degree Celsius (NICE 2007). Midwives, birthing centre and a large no of obstetricians believe that reducing the stress of labour and delivery will reduce the fetal complications also. Water birth should always occur under the supervision of a health care provider.

The first birth pool was used in france by Dr Michel in 1980s. It was 2 meters in diameter and 0.6m deep, large enough to accommodate two people. Modern birth pools are somewhat smaller with a diameter between 1.1-1.5 m and at least 0.5m deep.

Benefits for mother

- Warm water is soothing, comforting and relaxing.
- Buoyancy in water helps mother to feel lighter, and to move freely or go into the positions that help her relax during labour.
- Promotes more efficient uterine contractions and improved blood circulation resulting in better oxygenation of uterine muscles, less pain for the mother and more oxygen for the babies.
- Immersion in water lowers high BP caused by anxiety.
- Water seems to reduce stress related hormones allowing the mother body to produce endorphins which serves as pain inhibitors.
- Water causes perineum to become more elastic and relaxed reducing the incidence and severity of cervical tears and the need for an episiotomy.
- Mother feels sense of privacy.

Benefits for the baby: That baby has already been in the amniotic fluid sac for nine months and it gets the same gentle environment after delivery.

Risk of injuries is less which decrease the stress of birth thus increasing reassurance and sense of security.

Risks

Though BMJ is 95% confident in the safety of water births. They see a possible risk of water aspiration, seizures and infection for the baby. Umbilical cord avulsion can occur while lifting the baby.

Conditions not ideal for water birth:

- Herpes infection
- Breech presentation
- Excessive bleeding
- Maternal infection
- Twin pregnancy
- Preterm labour
- Meconium stained liquor
- Toxemia of pregnancy
- Big baby and/or premature baby
- Water is too hot.

ACOG recommendations 2016: Immersion in water during the first stage of labor may be associated with shorter labour and decreased use of labor analgesia BUT there are insufficient data on which to draw conclusions regarding relative benefits and risks of immersion in water during second stage of labour and delivery so it is better that birth should occur on the land and not in water.

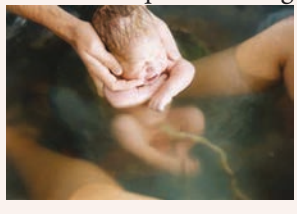
The royal college of obstetrician and gynaecologists (RCOG) and the royal college of midwives have jointly supported labour and birthing in water FOR HEALTHY WOMEN with uncomplicated pregnancies and encourage hospitals to ensure birth pools are available to all women. Midwives should have access to training in the use of water for labour and birth, protocols should be in place to support practice (RCOG/RCM2006)

Quality assurance measures are important and include the need to check the quality of water reaching the pool, protocol for cleaning the pool and infection control procedures (NICE 2007).

The temperature of woman and the water should be monitored hourly to ensure that the woman is comfortable and not becoming pyrexial. The temperature of water should not be above 37.5 degree centigrade. (NICU 2007).

How practical is water birth in India

We need to have a large, ready supply of water that needs to be clean and lot of disposable equipments for the monitoring and management of the delivery. Further adequate training of doctors and midwives is needed with good protocol in place. In india again, we have a long route to travel as far as water birth is concerned.



Conclusion

Water birth is thus a pleasurable, luxurious and painless experience with no prolongation of labour. It is on the verge of becoming a very safe and popular technique in our country in near future for laboring women making labour pain easy and bearable.

Controversies in oxytocin

Dr Meena Samant

Introduction

Oxytocin is a nine amino acid CNS neuropeptide which was discovered by Sir Henry Dale in 1906 from the human posterior pituitary gland. He coined the name oxytocin from the Greek words meaning "swift birth." Oxytocin was the first peptide hormone to be sequenced and synthesized by Vincent du Vigneaud in 1953 and for this achievement he was awarded the Nobel Prize in 1955.

The story of oxytocin begins right before pregnancy, continues during birth and peurperium. It travels from the brain to the heart and throughout the entire body, triggering or modulating a full range of physiological functions and emotions: happiness, attraction, love, affection, and hatred after stress. These are all governed directly or indirectly, at least in part, by oxytocin. This appears to play a central role in social behavior, and emerging clinical trials seek to assess and define its therapeutic potential in the treatment of pathophysiological behaviors.

Hazards

Controversy begins with it rampant overzealous and unregulated use in labour.

Research in two villages in Bijnor district, Western Uttar Pradesh, indicated that in 1998–2002, oxytocin injections were administered by untrained private rural medical practitioners in almost half (48%) of deliveries (n=346) to speed up labour. Studies in Karnataka 3 have shown that Oxytocin is being misused to speed up deliveries for pregnant women in overcrowded government hospitals.

High and unregulated dosages create hyper stimulation, which can lead to precipitate labour, perineal tears, uterine rupture and fetal distress. WHO recommends that general condition of mother should always be considered prior to start of Oxytocin in labour and cephalopelvic disproportion ruled out. Augmentation of labour should be performed only when there is a clear medical indication and the patient not to be left unattended. It should only be used in a facility with capacity to manage its potential outcomes. NICE guidelines further specify that in established delayed progress of labour, the woman should be transferred to obstetrician led care and full assessment made prior to start of oxytocin. Dose of oxytocin should be increased only after 30 minutes till there are 4 to 5 contractions in 10 minutes. Continuous monitoring of fetal heart should be done.

Most clinicians realize the damage oxytocin can do in wrong hands. A study from Sweden showed that injudicious use of oxytocin played a role in 71% cases of severe birth asphyxia. Also, neglecting to monitor fetal well being and neglecting the signs of asphyxia played a large part.

Drug regulation

The drug has been under scrutiny for long, and its retail sale by pharmacies already banned. Oxytocin bulk drug manufacturers can sell it to only those with licenses to make formulations with the drug. Drug makers on the other hand can supply it directly only to veterinary hospitals. Under Schedule H of the Drugs and Cosmetics Rule, 1954, the drug can be distributed by prescription and only by a registered medical practitioner.

Off label use-

Social misuse has made brought some more disrepute to this drug. There is a rising concern at the use of this growth booster among trafficked children, injected to accelerate puberty among girls.

Oxytocin has many nicknames: the love hormone, the cuddle hormone, the trust-me drug. That's because this naturally occurring human hormone has been shown to help people with autism and schizophrenia overcome social deficits. Oxytocin nose sprays have been considered for use in treating autism. As a result, certain psychologists prescribe oxytocin off-label, to treat mild social unease in patients who don't suffer from a diagnosed disorder. But that's not such a good idea, according to researchers at Concordia's Centre for Research in Human Development.

Finally…

Oxytocin is a useful drug. However, it is also a dangerous drug. Judicious use can overcome many perils of this double edged sword.

We would like to submit here that Oxytocin is a life saving drug for our mothers, and anyimpediment in its free and easy availability for HUMAN use is likely to result in a significant rise in the loss of women's lives due to PPH and failure to augment labour when needed.

We request that this issue be taken into consideration before issuing an order which may be detrimental to reproductive health in this country.

With regards and on behalf of Team FOGSI,
Jaideep Malhotra President FOGSI
Jaydeep Tank Secretary General FOGSI
Madhuri Patel Deputy Secretary FOGSI

Intrapartum Birth Asphyxia- A Corner to Light On

Dr Piyush Malhotra

Oxygen is to lungs, is as hope to the meaning of life- Emil Brunner

As gynaecology and obstetrics is a field wherein we look at the baby when it hasn't fully formed to the stage of delivery of the fully grown infant. Any subtle changes in ultrasound is an alarming bell for the gynaecs.

The first cry of the baby has always been heart-warming both for the mother and the doctor but a delay in cry or no cry is an emergency situation of '**Birth Asphyxia**'.

In general, birth asphyxia/neonatal asphyxia is a medical condition resulting from deprivation of oxygen to a newborn infant that lasts long enough during the birth process to cause physical harm, usually to the brain.

Asphyxia has many causes. It can occur in the womb, during labour or immediately after birth. In womb, asphyxia can occur due to:

1. Blockage or squeezing of umbilical cord, reducing the blood flow.
2. Low maternal BP 3. A tear or separation of placenta from the womb, called placental abruption.

During birth, asphyxia may occur depending on how labour progresses.

Intrapartum birth asphyxia, according to ACOG (1991) is defined as 'intrapartum hypoxia sufficient to cause neurological damage' as evidenced by

- umbilical artery ph<7.00
- 5 min-APGAR score<=3
- moderate or severe encephalopathy
- multiorgan dysfunction (e.g. CVS< renal, pulmonary).

Besides the progressed labour the other causes of intrapartum birth asphyxia are:

- Anemia In child or mother
- Premature baby not having properly developed airway
- Excessively high or low BP of the baby
- Maternal sedation during the pregnancy.

Since intrapartum birth asphyxia can lead to long- term neurological deficits and can be fatal sometimes therefore it is important to perform intrapartum fetal monitoring.

Electronic fetal heart rate monitoring by attaching a bipolar spiral electrode produces significant effect in short-term neonatal morbidity and a significant reduction in perinatal deaths due to hypoxia. Other monitoring techniques like Intrapartum Doppler Velocimetry (done at 38 weeks), fetal pulse oximetry, fetal scalp blood sampling, scalp stimulation, vitroacoustic stimulaton and fetal electrocardigonal wave form analysis can also be used as adjunct to conventional fetal monitoring. However these techniques lacks the literary support. Above all a point to remember is that, in case of birth and delivery a right test at right time can prevent a child from becoming a life time liability. Therefore antenatal/perinatal care is of utmost importance in all the deliveries.

APGAR SCORE
for assessing newborns

Criteria	0	1	2
Color	Pale or blue	Pink body, blue extremities	Pink body and extremities
Heart Rate	Absent	Less than 100 beats per minute	Greater than 100 beats per minute
Respiration	Absent	Slow and irregular	Good breathing with crying
Reflex Response	Absent	Grimace or noticeable facial movement	Coughs, sneezes or pulls away
Muscle Tone	Absent	Some flexion of extremities	Active and spontaneous movement of limbs

FOGSI & IAP have joined hands to work together for neonatal health in 2018.

Tarot for July 2018

Aries: Great month for Arieans, if single get ready to tie the knot. If wanting to propose, you will not find a better time. Start of a new relationship is also indicated. Right time to pursue higher studies.

Taurus: Do not take chances this month, just try to do what you have been doing, try not to start any new project, if planning to expand business just wait for a while. Good month to relax and enjoy. If wanting to conceive the stars are very favorable.

Gemini: All around changes indicated in your life, try to make the best of situations. Remember hard work always pays off. you might witness a low phase in your life, have patience and take it positively. Health of a elder person in the family might be cause for concern.

Cancer: Work might be demanding and stressful, try not to take too much on self, bite carefully only what you can chew... Things might not work out as expected, stay calm and let it pass.

Leo: You will be happy and content ,in a holiday mood, relaxed at work and in no work mode. You need to start concentration on work and not let this lax attitude make you lose opportunities.

Virgo: This will be a very satisfying month, good work, satisfactory travel good health and extra income/money coming your way. health will be good and mind relaxed.

Libra: Not a very good start to a great month ahead. Few small issues might bother you early in the month which will settle down to a satisfying month. Some elder person in the family might need your attention.

Scorpio: You might be stressed out personally and professionally this month, unexpected developments might upset your frame of mind, small health related issues might bother you. Patience is the word for you this month.

Sagittarius: Stressful month for you, things unexpectedly going wrong. Try to maintain a cordial atmosphere at home and at work. Look after your health.

Capricorn: Change of place, lots of travel, things not working out well. This month might be stressful for Capriconians. Try to take a break and relax.

Aquarius: Fortunes turning in your favor. good things coming your way, enjoy your good luck while it lasts, problems will be sorted out automatically.Travel for Leisure is indicated.

Pisces: This will be a hard month for you work wise, lots of work pressure and stress indicated. Look after your health and stay calm.

Rest is in God's hand, have a blessed July.

—Deepa Kochhar (Noida)
kochhar.deepa@gmail.com

Dear FOGSIans,
Happy Summery June!

June has been a very active and productive month. Our International Women's Conclave was a huge success and we came out with 25 white paper recommendations to be presented to the health minister. We also actively celebrated Yoga day on 21st. Menstrual hygiene awareness was done in many societies and environment friendly menstrual cup and pads were promoted. President FOGSI was on the "Move" to Bharuch to Goa to Ahmedabad to Mumbai to Patna. Go Green is our motto and a lot of environmental issues and campaigns were also done by FOGSI.

I take this opportunity to welcome you all to our next Yuva at Udaipur on

"Art & Craft of vaginal delivery"

Happy Reading
Happy Monsoon

Dr Neharika Malhotra Bora
Joint Secretary
FOGSI


3 June, 2018
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Yes !! We all together will bring down the Maternal Mortality Rate (MMR) of our country.

Bacterial vaginosis: Risk of Adverse Pregnancy outcome

Dr.Arif A.Faruqui , Clinical Pharmacologist

Bacterial vaginosis (BV) is a complex clinical syndrome characterized by alterations in the normal vaginal flora and a malodorous discharge when symptomatic.[1]

Bacterial vaginosis is present in up to 20% of women during pregnancy. The majority of these cases will be asymptomatic. Most women identified as having bacterial vaginosis in early pregnancy are likely to have persistent infection later in pregnancy.[2]

In pregnancy, BV has been associated with adverse outcomes such as miscarriage, premature rupture of membranes, preterm birth, and low birth weight.[1]

The babies can suffer from problems related to their immaturity both in the weeks following birth such as breathing difficulty, infection and bleeding within the brain as well as problems when growing up such as poor growth, chronic lung disease and delayed development.[2]

Perinatal mortality is high in India and a major contributor for this is preterm delivery and associated low birth weight. ***Ascending uterine infection from the lower genital tract the due to bacterial vaginosis (BV) has been implicated as an important causative factor for many pregnancy complications namely preterm labor (PTL), preterm premature rupture of membranes (PPROM) chorioamnionitis and endometritis.***

Association of BV with adverse outcomes in pregnancy: Meta-analysis conducted to study about adverse outcomes associated with bacterial vaginosis including over 30,000 women from 32 studies showed that ***bacterial vaginosis approximately doubled the risk of preterm delivery in asymptomatic patients as well as significantly increased the risks of late miscarriage and maternal infection.***[2]

In a study conducted on 200 women in Lok Nayak Hospital (New Delhi), it was found that among the cases of BV, 59.6% had adverse maternal and/or fetal outcome. A ***7.5-fold increased risk of late miscarriage and 3.22-fold increased risk of preterm labor and/or delivery was observed.***[3]

One study examining several pregnancy outcomes related to ***BV diagnosed during the first trimester of pregnancy reported a 2.6-fold increased risk of preterm labor, a 6.9-fold increased risk of preterm delivery and a 7.3-fold increased risk of preterm, premature rupture of the membranes.***[4]

Another study found that ***BV diagnosed in the second trimester*** was associated with an increased risk of preterm delivery and premature rupture of the membranes and that ***BV accounted for 83% of the attributable risk for preterm birth.***[5]

Studies have shown that the risk of an adverse outcome is particularly high in a patient with previous miscarriages have a positive vaginal smear for BV in early pregnancy.[6]

Although bacterial vaginosis has been shown to be an independent risk factor for these complications, many health care professionals still consider bacterial vaginosis more of a nuisance than a genuine fetal-maternal threat.

Variation in the incidence rates of BV during pregnancy: In a cohort study, 1,006 pregnant women between 16-28 weeks' gestation were screened for BV (Nugent's criteria) and for lower genital tract infection. Prevalence of BV was 11.53% and was associated with an increased risk of preterm birth (PTB) and premature rupture of membranes (PROM). BV accounted for 82.53% of the attributable risk for PTB.[5]

In a study conducted on 200 pregnant women, 38.5% were found to be have symptomatic BV and it was also noted that incidences of preterm labour was more in untreated cases.[7]

Challenges associated with BV based on trimesters: Studies have demonstrated that the more advanced the gestational age at testing, the lower the detection rate of vaginosis and the lower its predictive value for preterm delivery.[8, 9, 10]

When should the screening for BV be conducted during pregnancy?

It appears that infection with bacterial vaginosis in early pregnancy (second trimester) conveys a greater risk for complications than infection with bacterial vaginosis in late pregnancy.[11]

However, a positive test for bacterial vaginosis in early pregnancy may be a poor predictor for the development of preterm birth, preterm labor and premature rupture of the membranes.[4]

Based on increased risk, ***CDC guidelines recommend screening early in the second trimester.***[12]

Limitations of existing therapy:

Topical clindamycin vaginal cream is ineffective in reducing the rates of preterm birth.[9, 13]

In fact, such treatment actually increases the presence of vaginal Escherichia coli, an organism known to increase the risk for preterm birth.[14, 15]

Topical metronidazole gel has not been evaluated in the context of bacterial vaginosis during pregnancy. Topical antibiotics usually eradicate local bacterial vaginosis infection, ***but do not reduce prematurity sequelae because of the lack of access to the upper genital tract.***[14, 15]

Oral metronidazole and metronidazole combined with erythromycin have been shown to reduce pregnancy complications associated with bacterial vaginosis.[14, 15]

But because ***metronidazole use is contraindicated during the first trimester***, only women in mid to late pregnancy can be treated with the drug.

Although pregnant women with bacterial vaginosis obviously have an increased risk for pregnancy-related complications, it is unknown whether therapeutic intervention decreases the rate of specific fetal-maternal problems for all pregnant women.

In a study conducted in 200 women of late first trimester of pregnancy, most frequently occurring species were found to be Lactobacillus crispatus and Lactobacillus gasseri, followed by Lactobacillus jensenii and Lactobacillus rhamnosus.[16]

Recent reports indicate that exogenous strains of probiotics are useful in reestablishing a normal healthy vaginal flora and through judicious selection and delivery of probiotic strains to mitigate and eliminate the vaginosis.[17]

Are probiotics safe during pregnancy? Probiotics do not appear to pose any safety concerns for pregnant and lactating women.[18]

In-vitro studies have suggested that certain specific strains of lactobacilli are able to inhibit the adherence of Gardnerella vaginalis to the vaginal epithelium and/or produce H2O2 (hydrogen peroxide), lactic acid and/or bacteriocins, which inhibit the growth of bacteria causing BV.[19]

A positive smear at mid trimester (score ≥4) in pregnant with previous preterm delivery doubles the risk of recurrence. For women with a history of previous preterm birth there is some suggestion that treatment of bacterial vaginosis may reduce the risk of preterm pre labour rupture of membranes and low birth weight.[6]

Conclusion: The reproductive health of a woman is vital not only for her general health, but also for that of her partner and child.[17]

Bacterial infections can affect pregnant women from implantation of the fertilized ovum through the time of delivery and peripartum period. They may also affect the fetus and newborn.[6]

Symptomatic pregnant women with confirmed bacterial vaginosis should be treated.[20]

Guidelines from the Centers for Disease Control and Prevention (CDC) recommend treating asymptomatic high-risk pregnant women with bacterial vaginosis.[12]

In women at risk for preterm delivery an adverse outcome is more likely if bacterial vaginosis is detected in the first trimester.[6]

Treatment of bacterial vaginosis in pregnant women reduces the rate of preterm birth.[14, 21]

Probiotics should be considered as part of the approach to disease prevention and as an adjunct to antimicrobial treatment.[22]

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