EOGS BULLETIN

AUG & SEP 2019

“ Let us promote Breast feeding ”

Dr Nandita Palshetkar,
FOGSI President

WE FOR स्त्री
Safer • Stronger • Smarter

ERODE OBSTETRIC AND GYNAECOLOGICAL SOCIETY

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TN Societies Registration SI No. 144/2018

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Monthly Bulletin of Erode Obstetric and Gynecological Society
Editors: **Dr. E.S. Usha & Dr. N. Poongothai**

PRESENTS AN ACADEMIC FEAST

Date : **29.09. 2019, Sunday**
Time : **1.00 pm - 4.00 pm**
Venue : **Hotel Atrium,** Erode.

Lunch : 12.30 pm - 1.30 pm

Scientific session – (Time : 01.30 pm to 04.00 pm)

Speakers : **Dr. GITA ARJUN,** FACOG
Director, EV Kalyani Medical Centre

Dr. N.PALANIAPPAN, MBBS, DNB, MNAMS, FICS
Senior Consultant, SRMC

Topics:

1. Role of MgSo4 in the modern era of Obstetrics –
   Dr. N.Palaniappan - 1.30 PM - 2.00 PM
2. Breaking bad news –
   Dr. Gita Arjun - 2.00 PM - 2.30 PM
3. Clinical panel discussion on PIH - 2.30 PM - 3.30 PM
   Moderator - Dr. N.Palaniappan
   Panelists Dr. Manonmani, Dr. Shanmugavadivu,
   Dr. Poongothai Selvaraj, Dr. Premakumari
   Dr. Renju
4. Family and work - A Balancing Act for the Obstetrician –
   Dr. Gita Arjun - 3.30 PM - 4 PM

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JAUNDICE IN PREGNANCY

Introduction

Hepatobiliary disease in a pregnant woman is a challenge. Diagnosis has to be made in the context of expected physiologic changes. Liver diseases have implications for both the mother and the fetus.

Liver disease in pregnancy can manifest as a benign disease with abnormal elevation of liver enzyme levels and a good outcome, or it can manifest as a serious entity affecting hepatobiliary function and resulting in liver failure and death to the mother and her fetus.

There are no clinical markers that predict the course of a pregnancy and the pathophysiologic mechanisms are not always understood, but knowledge and management of the preconception liver disease and efficacious pre-pregnancy and prenatal care are essential.

The liver during normal pregnancy

- Physical examination — Spider angiomas and palmar erythema can be seen in normal pregnancy as well.
- Palpation of the liver is difficult because of the expanding uterus.
- Ultrasound examination — The biliary tract is usually normal.
- Pathology - no change.
- Serum total cholesterol and triglyceride concentrations increase markedly.

Liver tests affected by pregnancy

- Albumin and total protein (decreased from the first trimester)
- Alkaline phophatase levels (increased in second and third trimester)

- Bilirubin levels (slightly decreased from the first trimester)
- Gamma glutamyltransferase levels (slightly decreased in late pregnancy)

Liver tests not affected by pregnancy

- Serum aminotransferase levels (ALT, AST)
- Prothrombin time
- Serum concentration of total bile acids (fasting state)
- Lactate dehydrogenase (LDH)

Liver diseases in pregnancy

- Specific to pregnancy- intrahepatic cholestasis of pregnancy, acute fatty liver of pregnancy, severe preeclampsia, HELLP, hyperemesis gravidarum.
- Conditions worsened or predisposed by pregnancy – cholelithiasis, Budd-Chiari syndrome, hepatitis E virus infection.
- Chronic liver disorders – Cirrhosis.
- Not related to pregnancy- acute viral hepatitis, drug toxicity.

Intrahepatic cholestasis of pregnancy

- It is also known as recurrent jaundice of pregnancy, Cholestatic hepatosis and icterus gravidarum.
- Incidence is 1 in 500- 1000 pregnancies.
- Exact cause – not known.

Genetic predisposition, increase in steroid hormones and azathioprine are implicated.

- More common - Family history of biliary disease, hepatitis C, multiple gestations.

Clinical presentation

- Pruritis in late pregnancy precedes laboratory findings. Pruritis occurs before jaundice appears . Seen in palms and soles, worse at night.

- Skin changes- are limited to excoriations from scratching.
- 14- 25% of women- develop jaundice.
- Absence of constitutional symptoms and signs of pre-eclampsia differentiates it from serious hepatic disorders.

Biochemical changes

- Serum bile acid levels (≥10µmol/l) elevated upto 100 fold.
  - ✤ Mild- 10-39µmol/l.
  - ✤ Severe- >40µmol/l.
- Conjugated hyperbilirubinemia rarely exceeds 6mg/dl.
- Elevation of alkaline phosphatase, GGT.
- Serum aminotransferases are normal or mildly elevated (up to two fold)

Effects on mother

- Pruritis disappears 24-48hrs postpartum.
- Biochemical and histological abnormalities takes weeks to months to resolve.
- Cholestasis may recur in subsequent pregnancies in 60-70%.
- Cholestasis may recur in these patients with use of OCPs therefore non hormonal methods are advised.
- They have higher incidence of developing gallstones.
- Increased risk of PPH in patients with prolonged prothrombin time.
- Long term prognosis is good.

Effects on the fetus

- Increased risk of prematurity and higher perinatal mortality if the Serum bile acid level- >40µmol/L.
- Also there is increased risk of intrapartum fetal distress, meconium aspiration and neonatal respiratory distress, and IUD.

Management

- Includes relief of pruritis and reducing perinatal risks and safe delivery.
- Calamine lotion or aqueous cream with menthol gives partial relief.
- Antihistamines may be of some use.
- Ursodeoxycholic acid is the most effective treatment to reduce pruritis and improve liver function.
- The other drugs which can be used are cholesytramine, Dexamethasone, S adenosyl L-methionine.

Ursodeoxy colic acid

- Dose-10-15mg/kg/day.
- Even high dose- (1.5-2gm/ day) reduces abnormal maternal and fetal bile acid levels.
- UDCA at a dosage of 300mg thrice daily and to a maximum of 15mg/kg/ day to control symptoms.
- Completely safe for the fetus.
- LFT should be repeated weekly until delivery and at 6 weeks postpartum.

Management of pregnancy

- Nonstress tests may not be useful in ICP as the mechanism of fetal death is probably due to effect of bile acids on the myocardium.
- Delivery by 36 - 37 weeks (RCOG, SMFM, ACOG)
- Delivery prior to 36 weeks of gestation in women with ICP and:
  * Excruciating and unremitting maternal pruritus not relieved with pharmacotherapy.
  * Jaundice.
  * A prior history of fetal demise before 36 weeks due to ICP with recurring ICP in the current pregnancy.

* High total serum bile acid concentration ≥100 micromol/L.

Acute fatty liver of pregnancy

- Occurs in third trimester of pregnancy.
- It has acute onset and progress rapidly.
- Incidence is 1 in 10,000-20,000 pregnancies.
- It is associated with high maternal (10-15%) and perinatal mortality rate (15-20%).
- Fatty infiltration of hepatocytes without inflammation or necrosis.

Signs and symptoms

- Persistent nausea & vomiting.
- Epigastric pain.
- Anorexia.
- Jaundice.
- 50% of patients will have signs of pre eclampsia.
- Moderate to severe liver dysfunction manifests as hypofibrinogenemia, hypoalbuminemia, hypocholesterolemia and prolonged clotting times.
- In severe cases profound endothelial cell activation with capillary leakage causes hemoconcentration, acute kidney injury, ascites and pulmonary edema.
- In severe hemoconcentration- uteroplacental perfusion is reduced and this association with maternal acidosis can cause fetal death.
- Hypoglycemia is common.
- Hepatic encephalopathy feature may be present.
- Severe coagulopathy and some degree of renal failure develop in approximately half of women.

Laboratory diagnosis

- S. Bilirubin levels <10mg/dl.
- S. Transaminase levels- <1000U/l (moderately elevated).

- Increased ALP.
- Hemolysis- Leukocytosis, nucleated red cells.
- Mild to moderate thrombocytopenia.
- Elevated LDH.
- Peripheral smear- Echinocytes .
- Hypoglycemia.
- Renal dysfunction.
- Coagulopathy.
- Histological picture-micro and macrovascular droplets with enlarged hepatocytes containing dense, central nuclei and peripheral sparing with minimal hepatocellular necrosis.
- USG, CT, MRI may demonstrate fatty infiltration.

Management

- Supportive care and termination of pregnancy.
- Intensive supportive care is essential for both maternal and fetal survival.
- Patient should be hospitalized immediately for maternal stabilization, fetal monitoring and confirmation of diagnosis.
- Genetic counseling should be offered since AFLP recur in subsequent pregnancies.
- Chorionic villous sampling or amniocentesis can assist in prenatal identification of foetuses with LCHAD deficiency.
- Induction of labour /LSCS.
- Aminotransferases and encephalopathy start showing improvement within 2-3 days after delivery.
- Critically ill patients and those who develop features of liver failure should be transferred to specialised liver centres.
- Extreme case liver transplant may be necessary.
- Plasma exchange – acts as “Artifical liver”.

HELLP syndrome

- **H**emolysis with a microangiopathic blood smear, **E**levated **L**iver enzymes, and **L**ow **P**latelet count.
- Develops in 0.1 to 1 percent of pregnancies.
- Usually present between 28 and 36 weeks of gestation, but may present up to 7 days postpartum.

Clinical presentation

- Abdominal pain and tenderness in the midepigastrium, right upper quadrant, or below the sternum.
- Nausea, vomiting, and malaise may mimic viral illness.
- Hypertension and proteinuria are present in approximately 85 percent of cases.

Laboratory criteria for diagnosis

Tennessee classification

- Hemolysis, established by at least two of the following:
  * Peripheral smear with schistocytes and burr cells.
  * Serum bilirubin $\geq$ 1.2 mg/dL (20.52 micromol).
  * Low serum haptoglobin ($\leq$25 mg/dL) or lactate dehydrogenase (LDH) $\geq$600 IU/L.
  * Severe anemia, unrelated to blood loss.
- Elevated liver enzymes:
  * AST or ALT $\geq$2 times the upper level of normal.
- Low platelets: <100,000 cells/microL.

Maternal complications

- Abruptio placentae.
- Acute kidney injury.·
- Subcapsular liver hematoma.
- Pulmonary edema.
- Retinal detachment.
- Future pregnancies are at increased risk of developing HELLP, preeclampsia, and gestational hypertension.

Fetal outcome

- Preterm delivery is common.
- Maternal HELLP does not affect fetal/neonatal liver function.

Management

- Magnesium sulphate for seizure prophylaxis.
- Antihypertensives for BP control.
- If GA is less than viability or > 34 weeks or fetal or maternal complications - stabilise maternal condition and deliver.
- GA less than 34 weeks and no maternal or fetal complication – deliver after steroids.

Preeclampsia with severe features

20 weeks of gestation in previously normotensive women who develop:

- Systolic blood pressure ≥160 mmHg or diastolic blood pressure ≥110 mmHg.
- Systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg (with or without proteinuria) and one or more of the following
  - * New-onset cerebral or visual disturbance, such as: Photopsia and/or scotomata.
  - * Severe headache/ Altered mental status.
  - * Severe, persistent right upper quadrant or epigastric pain - <100,000 platelets/microL.
  - * Progressive renal insufficiency / Pulmonary edema.
- Labetolol (FDA category C) and methyldopa (FDA category B) are the drugs of choice for managing hypertension.
- Magnesium sulfate (FDA category B) of choice for preventing and treating preeclamptic and eclamptic women.
- Steroids for accelerating lung maturity.
- Early delivery is often required

Hyperemesis gravidarum

- Criteria for diagnosis - persistent vomiting accompanied by weight loss exceeding 5 percent of prepregnancy body weight and ketonuria unrelated to other causes.

Laboratory abnormalities

- Electrolyte and acid-base derangements, such as hypokalemia and hypochloremic metabolic alkalosis , Ketosis.
- Increase in hematocrit.
- Elevated blood urea nitrogen and urine specific gravity.
- Abnormal liver enzyme-
  - * Increase in serum aminotransferases.
  - * Hyperbilirubinemia may occur but rarely exceeds 4mg/dL.
  - * Serum amylase and lipase are elevated in 10 to 15 percent of patients.
- Mild hyperthyroidism.
- Hypomagnesemia and hypocalcemia.
- USG to exclude multiple pregnancy and mole.

Management

MILD:

- ➢ Dietary management
- ➢ vitaminB6 plus Doxylamine
- ➢ Diphenhydramine
- ➢ Dimenhydrinate

MODERATE:

- ➢ Promethazine
- ➢ Prochlorperazine
- ➢ Chlorpromazine
- ➢ Metoclopromide
- ➢ Ondansetran (oral, rectal. Parenteral)

Meeting on 28.07.19

Dr R Selvan

Dr Sambasivam

Dr Chandrasekaran

Audience

VIZAG TOUR

VIZAG TOUR

AUGUST MEETING

FACULTY

Dr Jayam kannan

Dr Vani Poojari

Dr Ravi Shankar

Dr E S Usha

Audience

SEVERE:

➢ Intravenous hydration with thiamine / Parenteral:

* Metoclopramide
* Promethazine
* Ondansetran

INTRACTABLE:

➢ Enteral or parenteral nutrition

Hepatitis

Hepatitis A

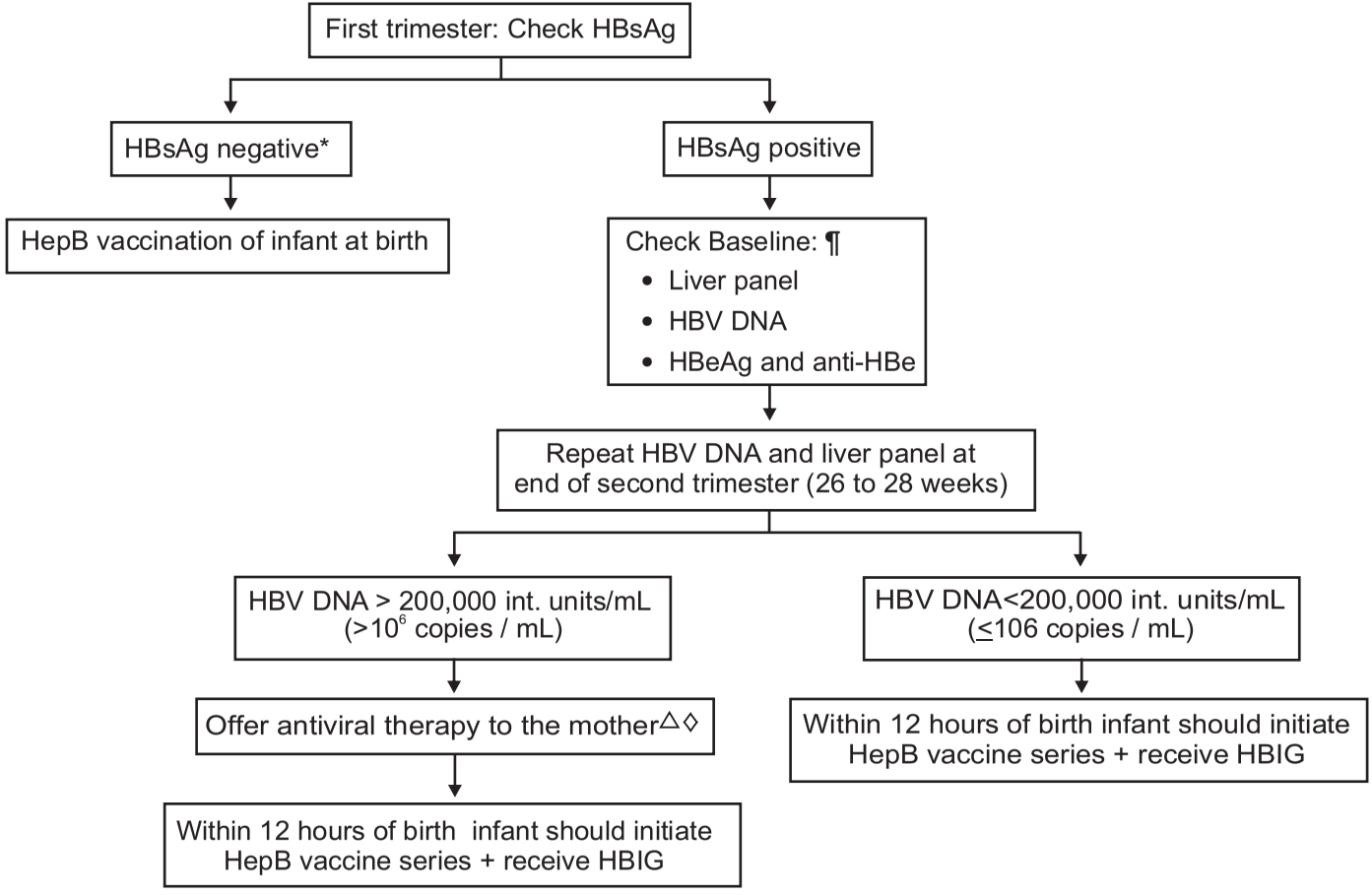
- Behaves in the same way as nonpregnant.
- Severe illness during third trimester may be associated with preterm labour and abruption.
- Management – rest and balanced diet.

Hepatitis B infection

- Acute HBV infection during pregnancy is usually not severe.
- Not associated with increased mortality or teratogenicity.
- Treatment is mainly supportive.
- Chronic HBV - Pregnancy is generally well tolerated.
- HBsAg-positive mothers should be monitored closely during pregnancy and the postpartum period as there is a risk of developing a hepatitis flare.

Vertical transmission

- 90% without any prophylaxis.
- Risk of HBV vertical transmission is I trimester- minimal.
  II trimester- 10% III trimester- 90 %
- Transmission can occur in utero, at birth, or after birth.
- Administering HBIG and hepatitis B vaccine to infants at delivery can reduce transmission by at least 95 percent.
- Risk factors for transmission, - positive HBeAg and a high maternal HBV viral load.


First trimester: Check HBsAg
HBsAg negative*
HBsAg positive
HepB vaccination of infant at birth
Check Baseline: ¶
• Liver panel
• HBV DNA
• HBeAg and anti-HBe
Repeat HBV DNA and liver panel at end of second trimester (26 to 28 weeks)
HBV DNA > 200,000 int. units/mL (>10^6 copies / mL)
HBV DNA<200,000 int. units/mL (≤106 copies / mL)
Offer antiviral therapy to the mother△◊
Within 12 hours of birth infant should initiate HepB vaccine series + receive HBIG
Within 12 hours of birth infant should initiate HepB vaccine series + receive HBIG

Hepatitis E

- Acute hepatic failure occurs more frequently when HEV

canal.

Incomplete miscarriage

Vaginal bleeding may be intense and accompanied by abdominal pain. The cervical os may be open with products of conception being passed, or the internal cervical os may be closed. Ultrasonography reveals some products of conception are still present in the uterus.

Complete miscarriage

History of bleeding, abdominal pain, and tissue passage. Ultrasonography reveals a empty uterus.

Early pregnancy loss/ missed miscarriage

Nonviable, intrauterine pregnancy within the first trimester.

Threatened Miscarriage :

Present in 20% of pregnancies and 70%of them are salvageable with proper care.

Ultrasound

Look for Intrauterine sac, yolk sac, CRL, cardiac activity, subchorionic haemorrhage.

Pelvic examination may be done to assess the condition of cervix if ultrasound is not conclusive.

Supportive care for Threatened Miscarriage

- Bed rest - No evidence to support.
- Uterine relaxants are ineffective.
- HCG injection- not supported by evidence.
- Progesterone usuage - studies support the usuage.

	Acute Hepatitis	ICP	HELLP	AFLP
Trimester	Any Trimester	Third	Third	Third
Presenting symptoms	Fever, Jaundice	Pruritus	HTN, Nausea, Vomiting,Pain	Nausea, Vomiting,Pain
ALT & AST	Markedly high	Normal to Mild rise	Moderately high	Moderately high
Alkaline Phospatase	Normal to mild rise	High	Normal	Normal
Platelets	Normal	Normal	Low	Normal
Fetal Complications	Infection with HBV & HCV	Prematurity, IUGR, FD	IUGR, Prematurity	Prematurity
Maternal Complications	Acute liver failure(HEV)	None	Thrombocytopenia, septicemia, DIC	Acute liver failure

Early pregnancy loss/ missed miscarriage

Ultrasound findings diagnostic of pregnancy failure

- Crown-rump length of ≥7 mm without cardiac activity.
- Mean sac diameter of ≥25 mm without an embryo.
- Absence of embryonic cardiac activity ≥11 days after an ultrasound showing a gestational sac with a yolk sac.
- Absence of embryonic cardiac activity ≥14 days after an ultrasound showing a gestational sac without a yolk sac.

Ultrasound findings suspicious for pregnancy failure

- Crown-rump length of <7 mm without cardiac activity.
- Mean sac diameter of 16–24 mm without an embryo.
- Absence of embryonic cardiac activity 7–10 days after an ultrasound showing a gestational sac with a yolk sac.
- Absence of embryonic cardiac activity 7–13 days after an ultrasound showing a gestational sac without a yolk sac.
- Absence of an embryo >6 weeks after a sure last menstrual period.

Dr. E.S. USHA
Lotus Hospital Erode

- ✤ Empty amnion with no visible embryo.
- ✤ Enlarged yolk sac (>7 mm).
- ✤ Small gestational sac in relation to the size of the embryo

  –Defined as <5 mm difference between the MSD and the CRL.

Management of miscarriage

- ✤ Expectant management
- ✤ Medical management –Mifiprestone, Misoprostol
- ✤ Surgical management- Suction evacuation with antibiotic cover.

Progesterone

In a normal menstrual cycle Serum progesterone increases. It falls if pregnancy does not occur. The falling levels of progesterone activate the nature killer cells to cause regression of endometrium.

When the natural killer cells persist in the uterus recurrent pregnancy loss occurs. This may be due to the action of immune system. Progesterone helps in managing miscarriage.

Dydrogesterone is non estrogenic, nonandrogenic non corticoid and nonanabolic. It acts through the receptor pathway, inhibits myometrial contraction independently and acts through voltage dependant calcium channels which contributes to the immunomodulatory effects.

The study by Patki et al. comparing 30 mg/d oral dydrogesterone with 600 mg/d micronized vaginal progesterone in 675 randomized patients suggested superiority of oral dydrogesterone in terms of clinical pregnancy achievement (RR 1.39, 95% CI 1.13–1.72).

Lotus I

It is a multinational, multicentric, randomized, double-blind, double-dummy clinical study. This trial firmly established that oral dydrogesterone is noninferior to micronized vaginal progesterone. The ongoing pregnancy rates were 37.6% and

33.1% in the oral and vaginal group treatment groups, respectively. Similar results were observed for the live birth rate: 34.6% and 29.8% in the oral and vaginal treatment groups, respectively.

FOGSI POSITION STATEMENT ON THE USE OF PROGESTOGENS

PROGESTERONE SUPPORT IN RECURRENT PREGNANCY LOSS AND THREATENED MISCARRIAGE

- Dydrogesterone is known to have immunomodulatory properties such as decreasing pro-inflammatory and increasing anti-inflammatory cytokines in early pregnancy
- Based on the available clinical data, progesterone support (vaginalmicronized progesterone & dydrogesterone) is beneficial in women presenting with a clinical diagnosis of threatened miscarriage with relative risk reduction in the miscarriage rate of 47% with the use of progesterone(risk ratio (RR) 0.53; 95% confidence interval (CI) 0.35 to 0.79).
- The doses of progesterone that are generally used in clinical practice as percurrent evidence are as follows:

Recurrent Miscarriage :

- Oral dydrogesterone 10 mg BD till 20 weeks of pregnancy.
- Micronized Progesterone : 400mg /day vaginally till 20 weeks of pregnancy

Threatened Miscarriage :

- Micronized Progesterone: 400mg /day vaginal till bleeding stops.
- Dydrogesterone : 40 mg loading dose followed by 20-30 mg daily till7 days after bleeding stops.
- There is no role of progesterone supplementation in normal healthy pregnant women for prevention of miscarriage.

DREAM Destination by VIZAG VALENTINES

Have you ever dreamt about a destination for more than 30 years? Many of us from “Maro Charithra” days longed to roll in Vizag beaches. Yes! Our dream fulfilled by the enthusiastic

organizers of EOGS in 2019 and made this year an ever-remembering milestone!!

Four days tour..! Leaving the hospital with patients for this lengthy days ! For this length why can't you plan an abroad tour? Why don't we go to some other place? Questions, explanations, contradictions, only seven members registered after first information – what else to de-motivate us to cancel this? Yet we have achieved a very successful tour with nostalgic memories. Everything was possible by the insistent organizers and the involved participants.

The trip started auspiciously in the dawn with the prompt punctual team-mates in an A/C Volvo bus arranged by the travel agency. After discarding the check-in luggage we had a sumptuous Anandhabhavan breakfast in a to-go pack in the airport lounge. Though a small pit-fall of one hour delay in Bengaluru transit our enthusiasm never dipped. After checking-in @ Sai Priya Beach Resort we headed for the Red sand Hills.

As the sand dunes are very high, many of us dint try to go up. Few adventure loving people like Nancy, Srimugha & Mari tasted the uphill view and ended with red-sand soiled dresses. Bheemili beach visit in the night was awesome with corn and ground-nut munching.

Second day dawned with all of us in the sea shore. The beach resort gave us an opportunity to play in the Rushikonda beach waves with kids & elders. It was difficult to pull them all for the city tour. Group photo taken with the nicely tailored Uniform. All of us in uniform gave a jubiliant mood and positive vibration among team-mates. Surely the credit goes to Dr.Poornima.

First stop of the tour was KAILASHAGIRI. Huge statues of Lord Shiva& Parvathi in white stones made us feel that we are actually in Heaven. Selfies with the GODs made Parvathi to blush!!

The beach views from the hill in different levels were awesome. Pencil sketch by an artist @ that place was superb. Due to lack of time only Dr. Janagi posed for a nice picture.

A long Marine drive with all eminent leaders surrounded by neatly maintained parks were breath-taking. If time permitted, we might have taken selfies with them all. Sub Marine Museum INS KURSURA-S20 is the high light of the Marine drive. It was commissioned on 1969 and decommissioned on 2001 after 31 years of service, participated in the Indo-Pakistani War of 1971 . It was thrilling to go through a real war-ship.

Opposite to Submarine is Aircraft Museum. It is a preserved Tupolev Tu-142 . It is an anti- submarine warfare .This aircraft served 29 years with the Indian Navy and had 30,000 hours of accident-free flying by the time of its retirement on 29 March 2017 at INS Rajali @ Arakkonam. After this historical museums dispute over shopping vs beaches successfully finalized for beaches. Though the travel was tedious to reach YARADA beach none of us were disappointed for the ride. Such a beautiful beach with a scenic atmosphere. Thoughtfully we brought the blue-tooth speaker and had avery nice DJ evening in the beach. "Sankaraparanam" failed before our DJ !!

Third day we got up very early to catch the passenger train to Arakku valley. As soon as we were seated in the dirty, uncomfortable seating of the train, everyone got upset and kept a long-face. Suddenly we thought of engaging everyone by train dance like Sharuk khan in Dilse. Out intelligent tour guide gave us the blue tooth speaker and we started our dance slowly with kids. To our surprise a big student's gang from Kolkatta University joined us to dance. Four hours went-off like 4 minutes. When our

Compiled by

Dr. Sri Revathy Sadasivam

from **Dr. Jayam Kannan's** Talk

stop to Borra Caves reached, none of us were willing to get down from the train. The worst anticipated train journey has become the best enjoyed portion of the tour!!

BORRA CAVES: It is one of the largest in the country and also the deepest caves in India. The Gosthani river water percolating from the roof of the caves dissolve limestone and trickle drop by drop to form the roof of the cave and then dripping down to the ground to form interesting structures inside the caves such as Shiva–Parvati, Mother–Child, Rishi's beard, human brain, mushrooms, crocodile, temple, church, etc. according to the imagination of tourists. The whole cave is well maintained with good pavement, safe rails, nice lightings. No litter, no plastics, no vendors anywhere inside the cave. We can go safely & leisurely. We took photos with Eastmen colours in the background. Special mention about the Bamboo chicken which was mouth-watering. Different taste in a road-side hotel amidst a drizzling weather.

Arakku valley is yet another wonderful place with lush green mountains with mist. Tribal museum in that valley is exhibiting the life of natives there with so many Halls having statues & carvings. The spices & Handicraft articles found in the shops there fulfilled our friends' quenching thirst for shopping!!

Last day also we had sea-shore walk & photo-shoot in the morning. After check-out visited the famous Simhachalam Temple. Here Varaha Lakshmi Narasimmar is seen in the form of Lingam (Varaha Narasimha's idol, when covered with sandalwood paste, resembles a Shiva Lingam.) Only on Akshaya Trityai he will be seen as Varaha Narasimhar. It is one of the 32 Narasimha temples in Andhra Pradesh, the second-largest after Tirumala . All of our team mates had a nice Dharshan within a short time which gave a peaceful end to the tour.

Return journey was through Chennai and arrived in time @ Coimbatore airport. Dinner in the roadside platform near a

TollPlaza added spice to our trip and made the journey with happy ending.

A lot more interesting events, spicy discussions, funny games, reckless enjoyments happened throughout the trip which will linger in our hearts until next year's tour.

It is a historical event of our EOGS trip outside Tamilnadu – Lengthy four days, Only Ladies , age group between 3 years to 70 years, went as a disciplined group, returned without any encumberence or ill-health, enjoyed to the maximum, left with Reminiscences by Vizag Valentines!!

We must thank EOGS office bearers Dr.Usha, Dr.Revathy & Dr.Dharani for making this trip successful ; Very polite, obliging Tour Manager Mr.Silambarasan from GT Holidays ; the bus driver@ Vizag for his hassle-free driving ; all participants of Vizag Valentines; Last but not the least - our founder Leader of "EOGS All women Tour" Dr.Tamilselvi Masilamani. Three Cheers to all !!

"LONG LIVE EOGS TOURS"

INTRACRANIAL LUCENCY

Neural tube defect is a serious congenital anomaly associated with mortality and lifelong disability.

Diagnosis of open spina bifida in the antenatal period is routinely done in the mid-trimester using lemon and banana signs on ultrasound. Intracranial translucency (IT) is a new sonographic landmark that may be valuable for the early detection of open spina bifida in the first trimester.

IT can be visualized in the standard midsagittal plane used for measurement of the nuchal translucency and evaluation of the nasal bone. The image should be magnified to include only the

fetal head and upper thorax as the same as in the measurement of nuchal translucency. In this position Chaoui et al describe that the fourth ventricle is seen as an intracranial translucency, delineated by two echogenic borders; the dorsal part of the brain stem anteriorly and the coroid plexus of the fourth ventricle posteriorly. At 11–13 weeks the brain stem appears hypoechogenic (dark gray) whereas the IT is anechoic (black). IT is the largest anteroposterior diameter of the fourth ventricle in the mid-sagittal position.

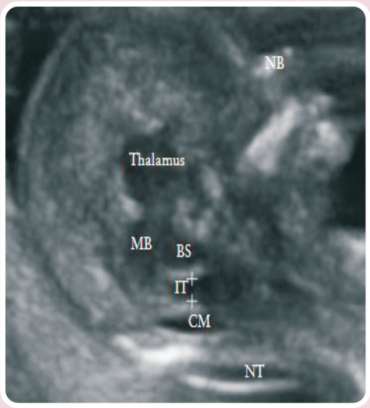
Open spina bifida is associated with Arnold-Chiari II malformation as the consequence of leakage of cerebrospinal fluid into the amniotic cavity and hypotension in the subarachnoid space which leads to caudal displacement of the brain stem and obliteration of the cisterna cerebellomedullaris (cisterna magna) . As a result of this mechanism absence of the IT is seen in the fetuses with open spina bifida.

Within the gestational age range of 11 – 13 weeks theanteroposterior diameter of the IT increases with fetal crown – rump length (CRL) from a median of 1.5 mm at a CRL of 45mm to 2.5 mm at a CRL of 85 mm.

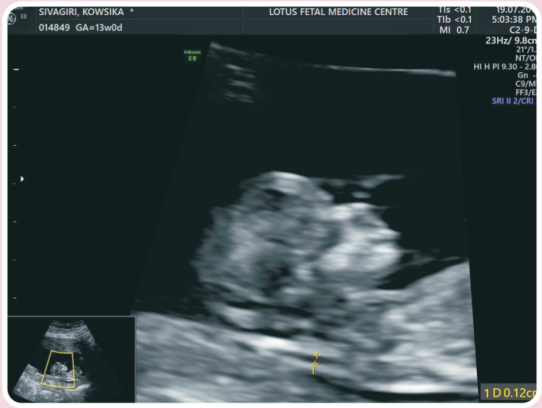
Dr. Nancy Thanu
EECH, Erode

Dr. E.S. USHA

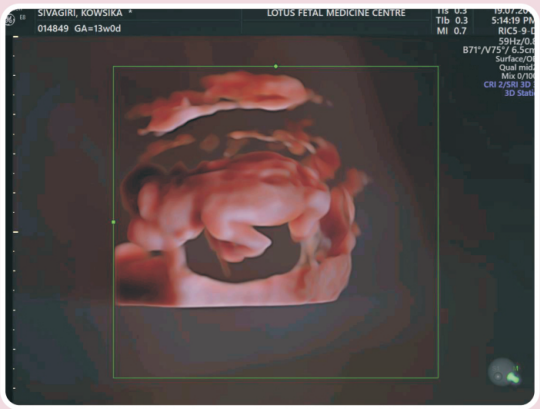
Normal IT



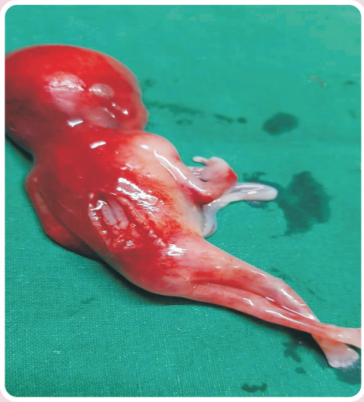
Absent IT



3D showing NTD



Abortus showing NTD



Case

- A 25 year old primi reported for routine NT scan.
- On imaging the intracranial lucency was obliterated.
- Transvaginal scan and 3D ultrasound demonstrated a neural tube defect.
- After termination the fetus was confirmed to have neural tube defect.

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