TAMIL NADU FEDERATION OF OBSTETRICIANS & GYNAECOLOGISTS

eNewsletter

Volume 1

High Risk Pregnancy

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President's Message

Dear Comrades

My warm greetings and best wishes to all of you. With proud privilege I am writing this message for our first News letter. we are facing the Corona war, the Govt is taking all the steps to protect the people and our medical fraternity is fighting tirelessly against Corona battle.

Amidst this a seed was sown for amalgamations of all the OG societies of Tamil Nadu under one roof of TNFOG (Tamil Nadu Federation Of Obstetricians and Gynaecologist) in June 2019. With great efforts esp. of Dr.Sampath kumari, the Federation was registered and first CME was conducted on 30th January 2021, when the office bearers were installed. The TNFOG is conducting regular monthly programs – " Magalir Nalam" and "Marathon CME" giving chance to the youngsters and seniors to share their knowledge and experience. The aim of TNFOG is to unveil the talents and expertise in the yuvas.

Yet another academic activity of TNFOG is coming out with News Letter which should culminate in the release of our Journal.

I am very happy and astonished to see the enthusiasm of our various societies in conducting the number of programs and CMES. I appeal to maintain the team spirit, increase your society membership and participate in all TNFOG programs apart from your own program. Let Tamil Nadu get an Icon place in our National body.

We are going to have a Midyear conference and Annual conference this year. Participate in large numbers and update your knowledge and serve better to our womanhood.

Together we win! Ever live TNFOG !!
Jai Hind !!!

Dr.Anjalakshi Chandrasekar

Secretary's Message

Dear Comrades

'Well begun is half done' – This adage holds good for our efforts to start a state federation of OG societies. We have been trying to initiate the process for more than 3 years. While every state had a state federation Tamilnadu should also get one, having played the pioneer role in forming the national federation years ago. Now, we are up and have got going, thanks to the unflinching support the organizing team got from all societies.

We have now conducted 4 webinars, CMEs and conferences. Plans are ready for the First ever Midyear Conference of TNFOG in the month of June 2021. Success of this event lies very much in the hands of all Presidents, Secretaries and every member of the participating member-societies. International faculties and sector veterans and luminaries are waiting to take part in this event. So, friends and fellow members mark the dates and encourage all your society members and friends to log in on those days. And, help make this event a tremendous success!

We are also happy to bring out our First Newsletter of TNFOG. This is the first step towards our desire to have our own indexed journal soon. I am sure with all your able support and active participation the day is not far off when we will flaunt our journal!

In these trying times and the plethora of similar events happening across country I am very well aware of the lack of time to attend every viable webinar. Yet it is every one of us' duty to keep our own flag flying high. I am confident that we all will contribute our might in this direction.
This newsletter is in its nascent stage and it will flourish with your suggestions and right feedback in time. Look forward to hearing from each one of you.

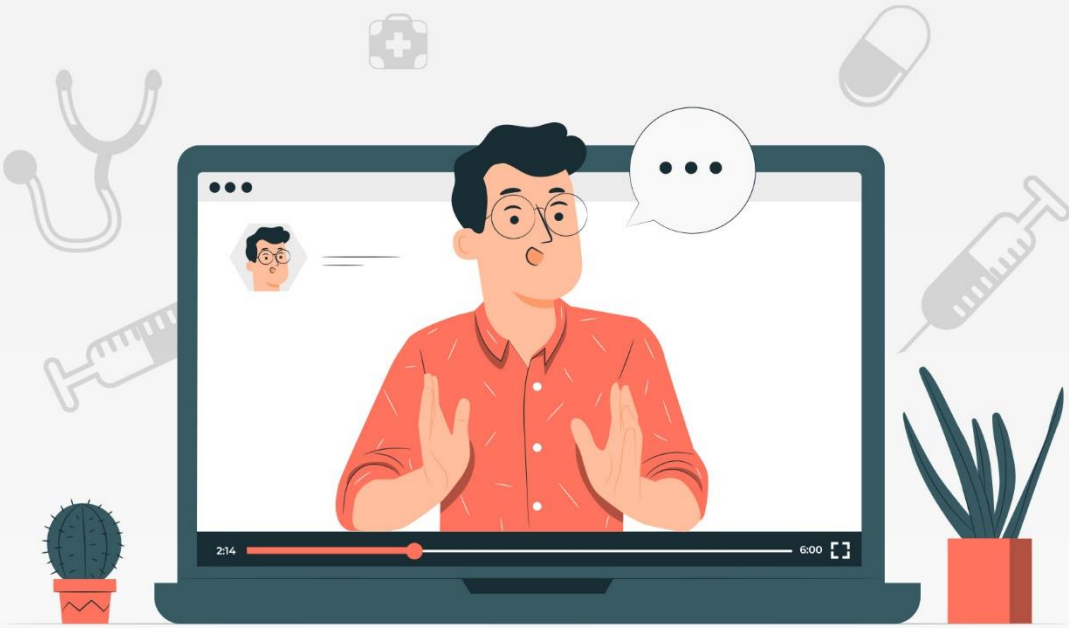
Until we all meet in person, STAY SAFE STAY HOME. HELP ONE ANOTHER IN THE FIGHT TO DEFEAT CORONA!
Long live our relationship and togetherness!

Dr.S. Sampathkumari

TNFOG Plans to conduct TWO CME Program Every Month

1. Marathon CME on 2nd Friday 2. Magalir Nalam

MARATHON CME??
THIS POINTS TO TWO THINGS



1. The YUVA OGCIAN Competition

Yes, every month 2nd Friday CME will have a session with 2 YUVA speakers, Consultants less than 35 years.

The session will be judged by the same judges and at the end of the year,
First, Second and Third prize will be awarded to the best speakers at the Annual conference.

All societies gear up and suggest one YUVA speaker of your society.

2. There is a question at the end of every session in the CME. The first Delegate who answers the question will be awarded a prize. This will continue in all the CMEs.

BE READY TO WIN THE PRIZE

ARTICLE 1

EVIDENCE BASED CRITERIA FOR DIAGNOSING OF GDM IN THE REAL WORLD

Prof Dr. C. Anjalakshi, MD, PhD
(Professor of Obstetrics & Gynaecology, Madha Medical College)
(Former Professor of Institute of Obstetrics & Gynaecology, Chennai)

International Association of the Diabetes and Pregnancy

Study Groups[1]:
IADPSG recommends that diagnosis of GDM is made when any of the following plasma glucose values meet or exceed: Fasting: ≥ 5.1 mmol/L (92 mg/dL), 1-hour: ≥ 10.0 mmol/L (180 mg/dL), 2-hour: ≥ 8.5 mmol/L (153 mg/dL)7 with 75 g OGTT.

The above guideline was based on the Hyperglycemia and Adverse Pregnancy Outcome (HAPO) study. This HAPO study included only caucasian population except city of Bangkok and Honk Kong[2]. Hence, this guideline may not be applicable for the other ethnic population.

Disadvantages and inadequacy of the IADPSG suggestions are:

1. **WHO in a lukewarm endorsement of the IADPSG criteria described the quality of evidence for its recommendation as "very low" and the strength of its recommendation as "weak"[3].**

2. **Center to center differences occur in GDM frequency and relative diagnostic importance of fasting, 1-hour and 2-hour glucose levels. This may impact strategies used for the diagnosis of GDM. The variations may influence the future development of optimal, cost-effective strategies for detection and treatment of GDM[4].**

3. **There is no high-quality evidence that women and their fetuses benefit from treatment if only the fasting value is abnormal. RCT shows benefit of treating GDM women identified primarily by post load values.[5]**

4. **In relation to FPG, there is a considerable variability between countries noted in the HAPO study with FPG diagnosing only 24% of GDM in women in Bangkok and 26% in Hong Kong compared with up to 71% in some US centers[6].**

5. **A low diagnostic rate of FPG has been reported in Asian Indians with a fasting plasma glucose 5.1 mmol/l (92 mg/dl) diagnosing only 24% of GDM[7].**

6. **Importantly even at centers, that accepted IADPSG recommendation, the approach varies and needs revision for standardization of the strategy for diagnosing GDM[8].**

7. **The concern is, IADPSG criteria over diagnoses GDM without clear clinical benefits[9].**

8. **Screening strategy based on the IADPSG criteria may be cost effective for high resource settings ($61,503/QALY), but probably is too costly for most countries[10].**

9. **A1C is not possible to perform in the less resource countries, not only because it is expensive but also due to lack of technically qualified staff. The cost and standardization of A1C testing are issues for consideration.[11]**

A Single Test Procedure to Diagnose GDM in the Community
(Diabetes in Pregnancy Study Group India)[12]:

"A Single test procedure" was developed due to the practical difficulty in performing glucose tolerance test in the fasting state, as seldom pregnant women visiting the antenatal clinic for the first time come in the fasting state. If they are asked to come on another day in the fasting state many of them do not return. Hence, it is important to have a test that detects the glucose intolerance without the woman necessarily undergoing a test in the fasting state and it is preferable to perform the diagnostic test at the first visit itself.

Procedure:
In the antenatal clinic, a pregnant woman after undergoing preliminary clinical examination, has to be given a 75 g oral glucose load, irrespective of whether she is in the fasting or non-fasting state and without regard to the time of the last meal. A venous blood sample is collected at 2 hours for estimating plasma glucose by the GOD-POD method. GDM is diagnosed if 2-hour PG is ≥ 140 mg/dL (7.8 mmol/L).

Performing this test procedure in the non-fasting state is rational, as glucose concentrations are affected little by the time since the last meal in a normal glucose tolerant woman, whereas it will, in a woman with gestational diabetes.[13] After a meal, a normal glucose tolerant woman would be able to maintain euglycemia despite glucose challenge due to brisk and adequate insulin response, whereas, a woman with GDM who has impaired insulin secretion, her glycemic level increases with a meal and with glucose challenge, the glycemic excursion exaggerates further.[13] This cascading effect is advantageous as this would not result in false-positive diagnosis of GDM.

Advantages of the DIPSI procedures are:

- **Pregnant women need not be fasting[14]**
- **Causes least disturbance in a pregnant woman's routine activities.**
- **Diagnosis of GDM with 2-h PG ≥ 140 mg/dl and treatment are worthwhile with a decreased macrosomia rate, fewer emergency cesarean sections, serious perinatal morbidity and may also improve the women's health-related quality life[15,16,17].**
- **If in the non-pregnant state 2hr PG>140mg/dl (IGT) is considered abnormal and requires intervention, then why can't it be considered abnormal during pregnancy?[18]**

Recommendation of International Organization and National Guidelines to Diagnose GDM:

National Guideline

Ministry of Health & Family Welfare Government of India recommends "A Single Test" Procedure for diagnosing GDM[19].

International Guidelines:

WHO Recommendation:

A. **WHO also accepts "a single test procedure" of DIPSI to diagnose GDM[5]. WHO has made a few important and pertinent observations with regard to GDM testing? OGTT is resource intensive and many health services, especially in low-resource settings, are not able to routinely perform OGTTs in pregnant women. In these circumstances, many health services do not test for hyperglycemia in pregnancy. For a pregnant woman, the request to attend fasting for a blood test may not be realistic because of the long travel distance to the clinic in many parts of the world, and increased tendency to nausea in the fasting state. Consequently, non-fasting testing may be the only practical option[25]. Laboratory glucose measurement is often not available, and testing with a portable blood glucose meter may be an option (DIPSI also recommends plasma glucose calibrated glucometers).**
B. **International Federation of Obstetrics and Gynaecology[20] (FIGO) and**
C. **International Diabetes Federation[21] (IDF)**
   Both (B&C) have approved this "single test procedure".

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ARTICLE 2

MATERNAL COMPLICATIONS OF DIABETES IN PREGNANCY

Dr. S. Sampathkumari MD, DGO, FICOG, FIME
Professor (OG), HoD, SMMCH& RI
FOGSI VP ELECT 2022
Founder Secretary, TNFOG

Diabetes is a disease in which your blood sugar levels are high. This is not safe for baby in GDM /Pre GDM Gestational Diabetes is the diabetes that is first seen in a pregnant woman. Often gestational diabetes can be controlled through eating a healthy diet and exercising regularly, if needed Insulin.
Diabetes women who are planning to become pregnant should take folic acid (5 mg/day) until 12 weeks of gestation to reduce the risk of having a baby with a neural tube defect
Women with diabetes who are planning to become pregnant should have controlled HbA1c level and blood glucose.

Women with diabetes who are planning to become pregnant should establish good blood glucose control before conception and continuing this throughout pregnancy will reduce the risk of miscarriage, congenital malformation, stillbirth and neonatal death. It is important to explain that risks can be reduced but not eliminated.

Women with gestational diabetes, the diabetes goes away soon after delivery. When it does not go away, the diabetes is called type 2 diabetes. Even if the diabetes does go away after the baby is born, half of all women who had gestational diabetes develop type 2 diabetes later.

Pregnant women with diabetes have to manage both the effect of pregnancy on glucose control and its effect on pre-existing diabetic complications.

1. **Women experience hypoglycaemia as a consequence of tightened glycaemic control and this impacts on daily living -most common**
2. **diabetic ketoacidosis, a serious metabolic decompensation of diabetic control and a medical emergency, can cause foetal and maternal mortality –less common**
3. **Micro vascular complications include retinopathy and nephropathy. Retinopathy can deteriorate during pregnancy; hence, regular routine examination is required. Diabetic nephropathy significantly increases the risk of obstetric complications and impacts on foetal outcomes. Pregnancy outcome is closely related to pre-pregnancy renal function**
4. **OBSTETRIC COMPLICATIONS**

(A) During pregnancy

Abortion - Recurrent miscarriage is associated with uncontrolled diabetes.
Preterm labour (26%) – Due to infection or poly hydraminos
Infections common are urinary infection& vulvo vaginitis
Pre-Eclampsia
Poly hyraminos (25 -50%) – Large baby, large placenta, fetal hyperglycemia leading to polyuria and increased glucose concentration of liquor irritating the amniotic epithelium or increased osmosis are some causes.

B) <u>During Labour</u>

Prolonged labour due to big baby
Shoulder dystocia is due to disproportionate growth with increased shoulder/ head ratio
Perineal injuries due to big baby
PPH
Operative interference
LSCS –incidence increased

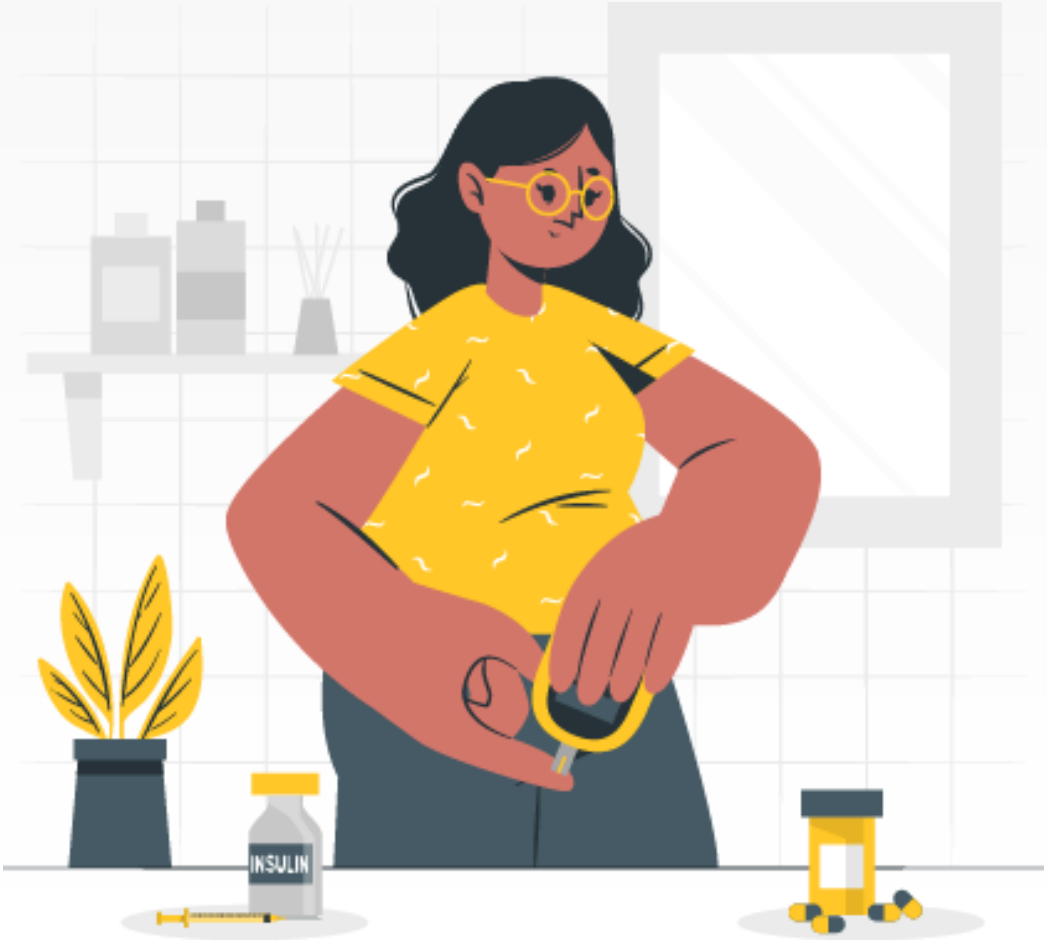
C) <u>During Puerperium</u>

Puerperal sepsis
Lactation failure

Maternal complication can be avoided with diet control, exercise, adjusting insulin and maintaining blood sugar values of FASTING – 90 & PP – 120mg.

Time & mode of delivery depends on obstetric indication only. If sugar value variable & uncontrolled terminate at completion of 38 weeks.

Every case has to be individualized with sugar control, previous history& Baby size.
DIET & EXERCISE FROM ADOLESCENCE CAN REEDUCE GDM & COMPLICATIONS



ARTICLE 3

ADVANTAGES OF SCREENING FOR GLUCOSE TOLERANCE IN THE SEQUENTIAL WEEKS OF GESTATION

Prof Dr. C. Anjalakshi, MD, PhD
(Professor of Obstetrics & Gynaecology, Madha Medical College)
(Former Professor of Institute of Obstetrics & Gynaecology, Chennai)

Pre-Life exposure relates to development during the time preceding the first appearance of life, a time course from "conception to confinement". From single cell zygote to finally formed fetus at confinement, a remarkable change occurs due to maternal fuels and hormonal influence on the fetal development.

David Barker's, "Fetal Origin of Adult Diseases theory" conceptualized that the body's susceptibility to "lifestyle" diseases was programmed in the intrauterine period. Intrauterine programming is a process whereby stimuli or stresses occurring at critical or sensitive periods of fetal development permanently change structure, physiology, and metabolism, thereby predisposing individuals to disease in adult life. If the stimulus happens to be hyperglycemia in pregnancy (HIP), the consequent abnormal maternal metabolic environment affects the developing fetal tissues, organs and control systems in complex ways which eventually lead to permanent functional changes in adult life. The quantum of hyperglycemic exposure in terms of duration and degree are relevant, as is the timing of the onset of exposure in the course of pregnancy. Early exposure during fetal organogenesis and placental development has relatively more severe and lasting consequences than later exposure. Depending upon the timing and quantum of exposure to the aberrant fuel mixture, different effects may occur on the embryo-fetus including abortion, congenital anomalies, macrosomia and large for gestational age (LGA), intrauterine growth restriction (IUGR) and small for gestational age (SGA), intrauterine death and still births etc.(II)

Short term complications in the offspring due to Hyperglycaemia

I Trimester	II Trimester	II Trimester	Postpartum & Neonatal
First 6wks post ovulation- increased anamolies –diabetic embryopathy 3rd wk - caudal regression syndrome 4th wk – spinabifida & Anencephaly 5th wk transposition of great vessels, renal anamolies 6th wk ventricular septal defects, anal atresia Increased fetal wastage	Diabetic fetopathy Behavioural abnormalities, Skeletal abnormalities – femoral hypoplasia unusual facial phenotype macrosomia	Diabetic fetopathy – preterm labour, PROM, macrosomia, IUGR, IUFD, sudden intrapartum death	Diabetic fetopathy-Sudden intrapartum death,shoulder dystocia,birth injuries Increased perinatal mortality,RDS,Hypoglycaemia,hyperbilirubinaemia,neonatal convulsions

ADVANTAGES OF SCREENING FOR GLUCOSE TOLERANCE IN THE SEQUENTIAL WEEKS OF GESTATION

Short term Hyperglycaemia complications in the mother:

Increased infections, PIH, Hydramnios, macrovascular complications, Instrumental deliveries, operative deliveries, obstetric palsies, puerperal sepsis.

Long term complications both in the offspring (independent of genetic risk) and mother:

1. **increased risk of early onset type 2 DM and obesity. Differences exist in the offspring, the risk of diabetes and obesity based on time and type of diabetes exposure in utero**
2. **A negative correlation has also been shown between the severity of maternal hyperglycaemia and the offspring performance on various neurodevelopmental and behavioural tests.**
3. **Compared with children unexposed to diabetes in utero, children exposed to diabetes have been reported to be at higher risk for Attention Deficit Hyperactivity Disorders (ADHD)**
4. **Autism Spectrum Disorders (ASD)**
5. **intellectual disabilities (IDS),**
6. **A more marked effect has been reported with combined exposure to maternal pre-pregnancy obesity and diabetes.**
7. **women with GDM have a high vulnerability for future Type 2 DM, and GDM is considered the most reliable marker for it,**
8. **Cardio metabolic disorders in women (III & IV)**

These effects have a proven possibility for prevention or delaying onset through appropriate post-partum lifestyle interventions.

TIME COURSE OF FETAL DEVELOPMENT FROM CONCEPTION TO CONFINEMENT1:

At the time of ovulation, after copulation, sperm travels through the cervix and uterus and into the Fallopian tubes. Conception usually takes place in the outer third of the Fallopian tube. A single sperm penetrates the egg and a fusion of the genetic information occurs. This resulting in a single cell is called a zygote.

Sperm entering egg

The zygote spends the next few days traveling down the fallopian tube and rapidly multiplying into number of cells through division. A mulberry-like mass, 0.0254 cm Wide, results from the cell division. This ball of cells in the Fallopian tube is called a morula.

With additional cell division, the morula becomes a blastocyst, with an inner core and an outer shell of cells. The outer group of cells become the membranes that nourish and protect the inner group of cells, which becomes the fetus. The blastocyst implants in the uterus between the 7th and 9th day after conception.

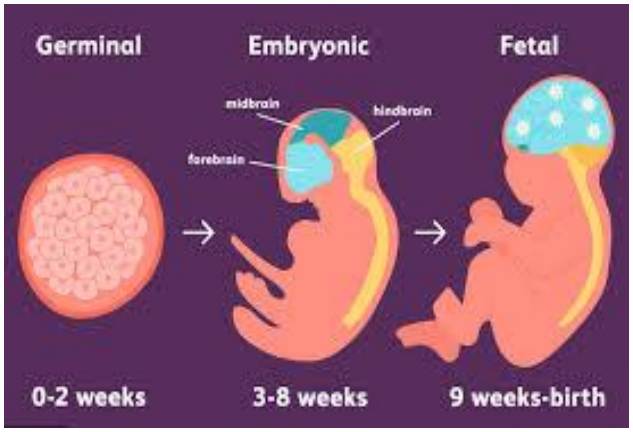
At this point the endometrium (the lining of the uterus) has grown and is ready to support a fetus. The blastocyst burrows into the endometrium where it receives nourishment. It is barely visible, but doubles every 24 hours. The placenta and supporting infrastructure for pregnancy develop at this time as well. It is estimated that up to 55% of zygotes never reach this phase of growth.

The Embryo:

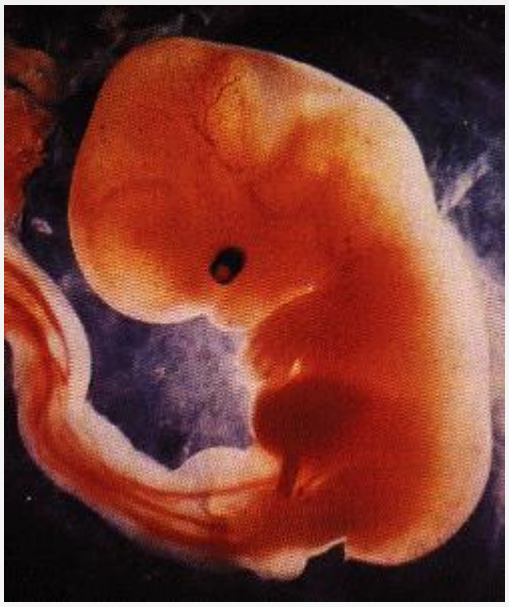
The embryonic stage begins on the 15th day after conception and continues until about the 8th week, or until the embryo is 3cms in length. During this period the cells of the embryo are not only multiplying, but they are taking on specific functions. This process is called tissue differentiation. It is during this critical period of differentiation (most of the first trimester or three-month period) that the growing fetus is most susceptible for damage from external sources (teratogens) including viral infections such as rubella radiation, and (mal-nutrition) abnormal metabolites.

A child who has one developmental problem may have other problems that arose at the same time: Kidney problems and hearing problems, for example, are often found together because both kidneys and the inner ears develop at the same time.

In Week 3 - The formation of the heart, the beginning of development of the brain, spinal cord, and the beginning of the gastrointestinal tract. At around 18 to 19 days after fertilisation, the heart begins to form. This early development is critical for subsequent embryonic and prenatal development. The heart is the first functional organ to develop and starts to beat and pump blood at around day 21 or 22.



Teratogens introduced during this period may cause severe problems such as the absence of one or more limbs or a heart that is outside of the chest cavity at birth.



Weeks 4 and 5 –The embryo is 6mm long: At this time, is the beginnings of the vertebra, the lower jaw, the larynx ("voice box"), and the rudiments of the ear and eye. The heart, which is still outside body, now beats at a regular rhythm. The arm and leg "buds" are visible with hand and foot "pads".
Teratogens may cause very serious problems involving the oesophagus, vertebrae, eyes. The baby could be born with severe facial clefts or missing of hands or feet.

Week 6 – 12.7mm, 28.3mg: In week 6, the formation of the nose, jaw, palate, lung buds occur. The fingers and toes form, but may still be webbed. The tail is receding, and the heart is almost fully developed.

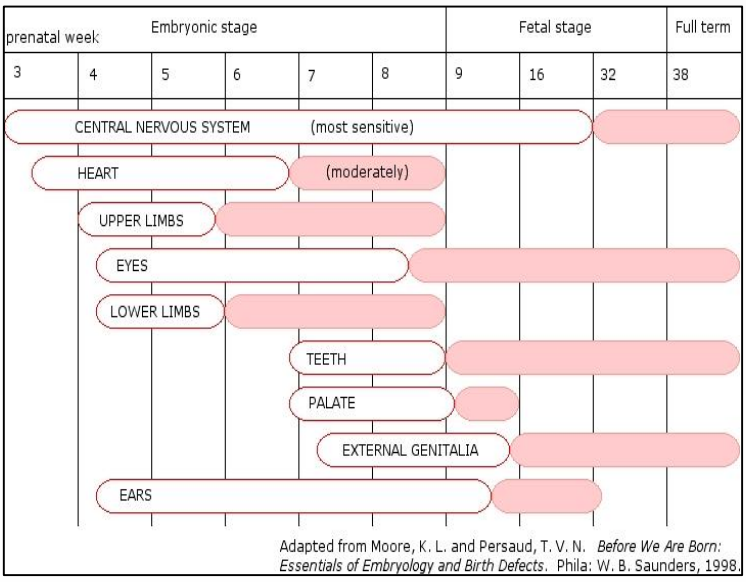
Teratogens at this point may leave the baby with profound heart problems or a cleft lip.

Week 7 – 22.2 mm, 93.5mg: This week, the eyes move forward on the face, and the eyelids and tongue begin to form. All essential organs have begun to form.
Teratogens may cause heart and lung problems, a cleft palate, and ambiguous genitalia (not quite clear male or female).

Week 8 -25.4mm, 1.8 gm: The embryo now resembles a human being. The facial features continue to develop and the external ear and the external genitalia appear. By now, the circulation through the umbilical cord is well developed. The long bones begin to form and the muscles are able to contract.

Teratogens may still cause heart problems and stunting of the fingers and toes.

The Fetus:



Timing of birth defects

At this point the embryo is developed enough to call a fetus. All organs and structures found in a full-term new-born are present.

Weeks 9 to 12 - 76.2mm, 28.35gms: The head comprises nearly half of the fetus size and the face is well formed. The eyelids close now and will not reopen until about the 28th week. The tooth buds for the baby's teeth appear. The genitalia are now clearly male or female.

Weeks 13 to 16 - 15.2 cm: These weeks mark the beginning of the second trimester. Although the skin of the fetus is almost transparent,.

fine hair develops on the head called lanugo. The fetus makes active movements, including sucking, which leads to some swallowing of the amniotic fluid. A thin dark substance called meconium is made in the intestinal tract. The heart beats120-150 beats per minute and brain waves detectable

Weeks 17 to 20 – 20.3 cms, 500 gms: Eyebrows and lashes appear and nails appear on fingers and toes. This is an exciting time for the parents: The mother can feel the fetus moving ("quickening") and the fetal heartbeat can be heard with a stethoscope.

Weeks 21 to 24 - 28.4 cms, 766 gms: All the eye components are developed, footprints and fingerprints are forming, and the entire body covered in cream-cheese-like vernix caseosa. The fetus now has a startle reflex.

Weeks 25 to 28 – 37.5 cms, 1.2 kg: Now we are entering the third trimester. During these weeks, we see rapid brain development. The nervous system is developed enough to control some body functions, and the eyelids open and close. A baby born at this time may survive, but the chances of complications and death are high.

Weeks 29 to 32 – 37.5 cms to 43.1 cms, 1.9 kg: These weeks see further development towards independent life: There is a rapid increase in the amount of body fat and the fetus begins storing its own iron, calcium, and phosphorus. The bones are fully developed, but still soft and pliable. There are rhythmic breathing movements present, the fetal body temperature is partially self-controlled, and there is increased central nervous system control over body functions.

Weeks 33 to 36 – 40.6 to 48.2 cms, 2.6 kg to 3.1 kg: The lanugo (body hair) begins to disappear. A baby born at 36 weeks has a high chance of survival.

Weeks 37 to 40 -48.2 to 53.3 cms, 3.1 to 3.6 kg: At 38 weeks, the fetus is considered full term. It fills the entire uterus, and its head is the same size around as its shoulders. The mother supplies the fetus with the antibodies it needs to protect it against disease.

PRE & PERI CONCEPTIONAL PERIOD:

Euglycemia is critical during the fertilization. During In vitro development, oocytes and zygotes cultured briefly in the absence of glucose are unable to complete embryo compactions, failing to progress beyond the morula stage[2]. Hyperglycaemia culture conditions are also toxic to embryos, indicating that normal development requires a narrow glucose concentration range(I&II). The ideal glycemic levels during pre-conceptional period and pregnancy are FBG of 3.9 ± 0.4 mmol/L, one-hour postprandial glucose of 6.0 ± 0.72mmol/L, two-hour postprandial glucose of 5.5 ± 0.55mmol/L, and 24hour mean of 4.9 ± 0.55mmol/L[3].

FACTORS OPERATING IN ORGAN DEVELOPMENT AND FETAL GROWTH:

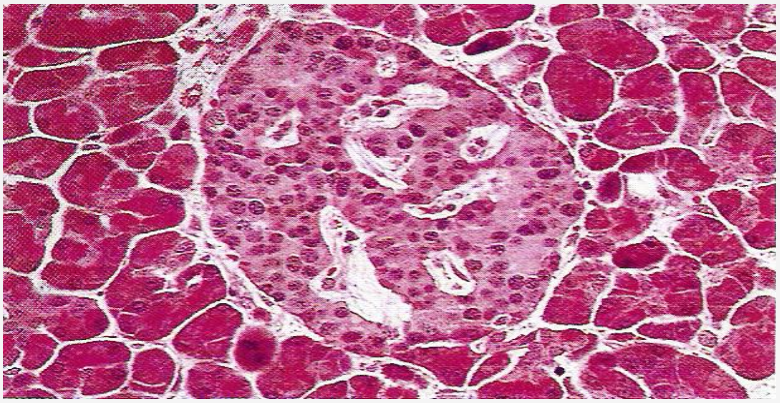
The ovum is well supplied with mitochondria but the sperm contains a few and even those few do not persist in the offspring. At fertilization it is only the nucleus of the spermatozoa that enters the ovum and thus all the cytoplasm, mitochondria and mitochondrial DNA are exclusively maternally inherited4. Maternal inheritance is attributed to mutation in the gene(s) present on mitochondrial (mt) DNA and is transmitted invariably by an affected mother to her progeny. The unique feature of mitochondrial (mt) DNA is its maternal inheritance5.

MATERNAL HYPERGLYCEMIA & PROGENY

Exposure to a diabetic environment in utero is associated with increased occurrence of impaired glucose tolerance and a defective insulin secretary response in adult offsprings, independent of genetic predisposition to type 2 diabetes. "Intrauterine milieu > Inherited Destiny"[6].

MATERNAL DIABETES AND FETAL INSULIN SECRETION'

Fetal Pancreas: Each Islet Cell Functions as an Endocrine Organ. Appears at 11th Week of Gestation, Recognizes and Responds to Maternal Glycemia at 15-16 Weeks of Gestation[7]. Human studies have shown an increase in pancreatic β-cell mass and insulin secretion in the fetuses of poorly controlled diabetic women by 16 weeks gestation. Fetal renal threshold is 110 mg/dl[8].



INFLUENCE OF MATERNAL HYPERGLYCEMIA ON FETAL GROWTH

Early maternal metabolic imprinting may affect fetal growth. The priming of the β-cell mass in mid gestation may account for the persistence of fetal hyperinsulinemia throughout pregnancy and the risk of accelerated fetal growth even when mother enjoys good metabolic control in later pregnancy. Early maternal metabolic imprinting may affect fetal growth[9].

IMPORTANCE OF FIRST TRIMESTER

The first trimester begins on the first day of the last period and lasts until the end of week 12. This means that by the time one knows for sure of her pregnancy, she might already be five or six weeks of pregnancy. A lot happens during the first three months.

Early gestation exposure to excess maternal fuels may impact the placental transport in a time dependent manner. This results in different growth pattern, underscoring that "earlier intervention" timing may be important[10]. Though the fetal development is discussed in days and weeks it is wiser to test the maternal glucose level on the next day women misses her period. Monitoring maternal glycemia and maintaining 2 hr postprandial plasma glucose between 110 -120 mg/dl by using plasma calibrated glucometer level every week, may be a wise decision.

INFLUENCE OF MATERNAL HYPERGLYCEMIA ON FETAL GROWTH

The priming of the β-cell mass in early gestation may account for the persistence of fetal hyperinsulinemia throughout pregnancy and the risk of accelerated fetal growth even when mother enjoys good metabolic control in later pregnancy. Early maternal metabolic imprinting may affect fetal growth[11].

RATIONAL FOR EARLY WEEKS SCREENING

Metabolic perturbations are underway before the usual diagnosis (24th to 28th week) and that earlier screening and intervention may be warranted[12]. Maegawa Y, et al observed (63.6 %) in the first trimester and the rest (36. 4%) in the second and third trimesters. This finding suggests the importance of screening for glucose intolerance in the first trimester[13]. Seshiah et al also documented that GDM manifests in all trimesters of pregnancy[14]. Hence the present concept is that there is a "Need for testing glucose tolerance in the early weeks of pregnancy"[15].

ADVANTAGES OF EARLY TESTING

Early testing for glucose intolerance and care, could avoid some diabetes related complications such as hydramnios, fetal anomalies, macrosomia and preterm births in women with gestational diabetes[16,17]. Studies have shown glucose levels at weeks 10-14 were positively associated with estimated fetal weight starting at week 23 and the association become significant at week 27. Higher glucose concentration in early pregnancy were significantly related to a larger fetal size in late pregnancy[18].

MATERNAL NUTRITION:

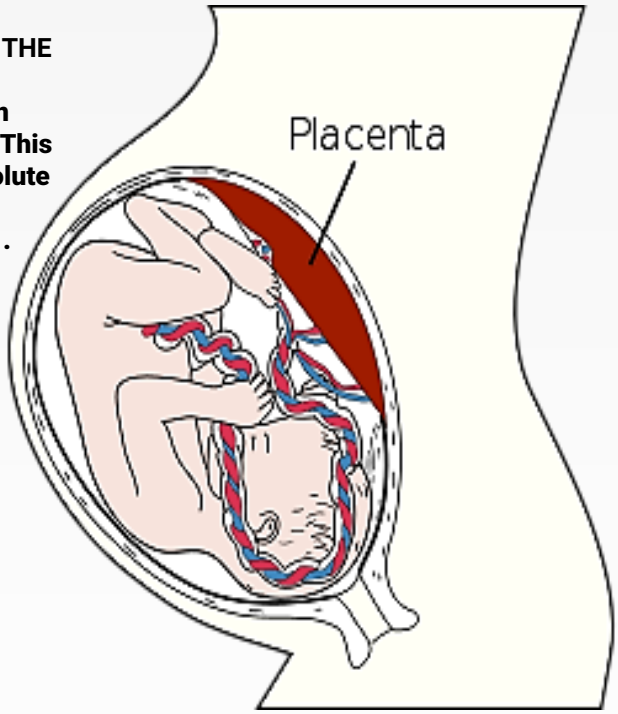
The goal of nutrition in pregnancy is to support maternal, placental, and fetal metabolic needs, and it may be the first introduction to a lifetime of healthy eating[19].

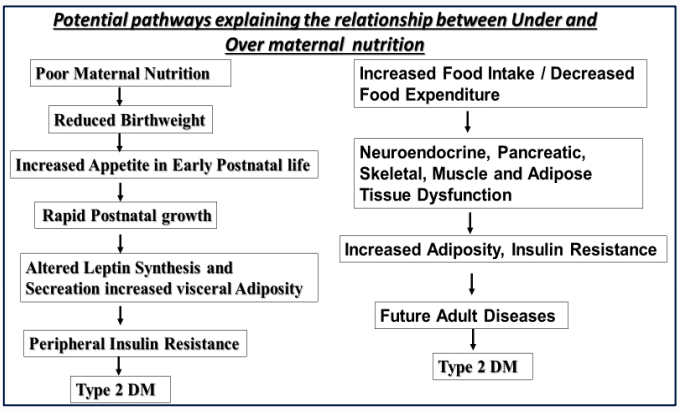
PLACENTA A TEMPORARY ENDOCRINE ORGAN

Placenta connects the developing fetus via the umbilical cord to the uterine wall to allow nutrient uptake, thermo-regulation, waste elimination, and gas exchange via the mother's blood supply; to fight against internal infection; and to produce hormones (hypergycaemic – anti insulin) which support pregnancy[20]. Nutrients pass through it but insulin does not cross and maternal insulin is being destroyed by placental insulinase.

MATERNAL NUTRITIONAL STATUS & ITS INFLUENCE ON THE OFFSPRING:

The intrauterine milieu is a strong modulator of changes in pancreatic development and peripheral insulin response. This ultimately culminates in adult onset GDM and T2DM. Absolute nutritional deviations from the optimum, whether over- or undernutrition, produce the same effect on the offspring[21].





CONCLUSION:

Fetal Development invariably involves exquisite interplay between maternal physiology, metabolism and hormones. Nature Nurtures the embryogenesis from conception to confinement. The environment that the oocyte is exposed to, during the peri-conception period can have a significant impact on oocyte developmental competence (the ability of the oocyte to support fertilisation and subsequent embryo development) and the long-term health of the resulting offspring. All pregnancies should be a planned pregnancy and hence pre prenancy councelling with very early diagnosis of pregnancy by serum beta HCG at the end of 3rd wk of menstrual cycle and by urine beta HCG by the end of 4th wk of menstrual cycle is mandatory. Though the fetal development is discussed in days and weeks it is wiser to test the maternal glucose in the periconceptional period and next day women misses her period. Monitoring maternal glycemic level every week, may be cumbersome but prudent.

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ARTICLE 4

CHANGING ATTITUDE OF ADOLESCENT DURING COVID TIMES

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(The Author has immense experience in organising and conducting Adolescent Health initiatives for many years, including the National Award winning project named 'THALIR', which expands as Teenage Health And Living It Right)

Coronavirus disease (COVID-19) is profoundly affecting lives around the globe. Isolation, contact restrictions and economic shutdown impose a complete change to the psychosocial environment of affected countries. The current situation affects children, adolescents and their families in an exceptional way. Kindergartens and schools have been closed, social contacts strongly limited and out-of-home leisure time activities cancelled. Parents are asked to support their children with home schooling, while at the same time they too are working from home. External support by other family members and social support systems have fallen away. Beside worries and anxieties related to COVID-19, the economic situation has worsened with high and rising levels of unemployment in all affected countries. This has put a lot of pressure on children, adolescents and their families which could result in distress, mental health problems and violence.

During the recent Coronavirus outbreak in China, 54% of the participants of a large online study rated the impact of the outbreak on their mental health as moderate to severe, with depressive symptoms and anxiety being the conditions most often stated (1). The current crises imposes multifaceted burdens on children. They include the socio-ecological impact of the pandemic, which is understood to be enormous. The environment of children is affected at different levels– including community and family - as well as the individual child itself (2)

Community-related risks for mental health

Since the pandemic was announced, at the community level, there has been disruption of to basic services, such as kindergarten, schools, and routine medical care. There have been closures or reduced services of inpatient and day-care facilities, with outpatient contacts reduced to emergency cases only. Hospitals have been unable to accept new inpatients due to the risk of infection. Importantly, even the activity of child protection services and currently existing programs of support or supervision by youth welfare agencies have been disrupted or interrupted (3). The lack of access to these basic services can be particularly harmful for vulnerable children and/or families.

Moreover, leisure time activities have been limited. Children have not been allowed to use regular playgrounds, social group activities are prohibited and sports clubs are closed. Social relations have been strongly limited to closest family members. This can have a negative impact on children and adolescents given the importance of peer contact for well-being.

Challenges within the families

At the family level, the pandemic has led to a re-organization of everyday life. All family members have to cope with the stress of quarantine and social distancing. School shutdowns have led to home-schooling and potential postponement of exams. Parents have experienced increased pressure to work from home, to keep jobs and businesses running as well as to take care of schooling children at home, all at the same time, while caregiver resources including grandparents and the wider family have been restricted. Family connections and support may be disrupted. Fear of losing family members who belong to a risk group can increase. In case of death, the pandemic disrupts the normal bereavement processes of families. This could lead to adjustment problems, post-traumatic stress disorder, depression and even suicide of both, adults and young people (4)

It also has fallen on the parents' shoulders to inform and explain to children about the pandemic, and to handle fear and anxiety accompanying these uncertain times. All family members may have their own fears related to COVID-19. Taken together, this can result in enormous stress and psychological distress for all family members.

The pandemic has major economic implications and puts financial pressure on many families. It has been shown in previous economic recessions that economic pressure can pose a severe threat to mental health. Mental illness and substance abuse of parents significantly influence parent–child relations and increase the risk for mental health problems in children.

Domestic violence and child maltreatment

In economic recessions a significant increase in domestic violence can be seen. Income loss and economic hardship can lead to feelings of economic stress and consequent marital conflict. Quarantine can lead to decreased freedom and privacy, and consequently higher stress. It may also increase existing controlling behaviours by perpetrators as they struggle to regain a sense of control. Exposure to perpetrators is increased, and the possibilities of victims to temporarily escape abusive partners are reduced (5). The UN secretary general António Guterres pointed out a "horrifying global surge in domestic violence". Exposure to domestic violence again significantly affects mental health of children and has the potential to create long-term consequences.

Moreover, a notable increase in physical, emotional and sexualized violence against children during recession has been reported.In the literature, an increase of all forms of child maltreatment has been proven during a recession in a wide variety of cultures. Based on these data, for the COVID-19 pandemic, a worldwide increase in the risks for children and adolescents is a plausible assumption.

Quarantine-associated risks

Besides economic pressure, COVID-19 pandemic-related quarantine in several countries could significantly affect mental health. In a recent review on the psychological impact of quarantine, Samantha Brooks and colleagues pointed out that post-traumatic stress symptoms (PTSS) occur in 28 to 34% and fear in 20% of subjects in quarantine. Additional quarantine-related mental health problems include depression, low mood, irritability, insomnia, anger and emotional exhaustion.

Another quarantine-associated threat is an increased risk of online sexual exploitation. Since the beginning of the pandemic, children and adolescents have spent more time online, which may increase the risk of contact with online predators. Due to limited social encounter, children's outreach to new contacts and groups online has increased. As more adults have been isolated at home, there may also be an extended demand for pornography.

The question remains, whether infection with COVID-19 can directly lead to onset or aggravation of mental disorders. Seropositivity to influenza A, B and Coronaviruses has been associated with a history of mood disorders (6). In addition, onset of psychotic disorders has been reported to be associated with different Coronavirus strains.

Can there be beneficial consequences for mental health from the current crisis?

Together with multiple threats to mental health, the current pandemic could also provide opportunities. When families successfully complete the initial transition phase, the absence of private and business appointments, guests and business trips can bring rest and relaxation into family life. Several external stressors disappear. Mastering the challenges of the COVID-19 crisis together may strengthen the sense of community and cohesion among family members. More time with caregivers can go along with increased social support, which strengthens resilience. In addition, children troubled by school due to bullying or other stressors, can experience the situation of home-schooling as relieving, as a main stressor in their everyday life ceases to exist.

Moreover, mastering current challenges could contribute to personal growth and development. Personal growth is an experience of psychological development as compared with a previous level of functioning or previous attitudes towards life. Thus, successful management of stress and trauma can lead to personal growth, which in turn reinforces the sense of competence and becomes a protective factor for coping with future stressors

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ARTICLE 5

MANAGEMENT OF MISSED ABORTION

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Missed abortion poses a challenge to gynaecologists and creates a lot of mental trauma in the mind of the patient. The uncertainty of diagnosis, repeated visits to the doctor, with tests add to the trauma .Medical management is yet not standardised.. Evacuation is also difficult due to adherent products.

Definition: Missed abortion is simply nonviable intrauterine pregnancy that has been retained within the uterus without spontaneous abortion.
Presentation: Missed abortion may present with

1. Bleeding per vagina seen with a normal pregnancy.

2. Routine ultrasound shows missed abortion

Types of early pregnancy loss :
1. Anembryonic pregnancy: USG picture shows no embryo with gestational sac mean diameter of 25mm or more
2. Embryonic demise: Gestational sac shows an embryo, ≥ 7mm & no heartbeat .
3.Foetal demise: Gestational sac with foetus ≥ 10 weeks, no heart beat.

Diagnosis : **A clinician has to combine the message given in various studies to arrive at a conclusion in his/her own practice.**

a. **A CRL of ≥ 6 mm without heartbeat is quoted in some studies, while foetal length of 5mm without heart beat is quoted in others to suggest that the pregnancy may not attain viability. The measurement of CRL can be erroneous and an error margin of 1mm here or there has to be allowed to be there .When faced with such a situation, the clinician can ask the patient to come after 1 week for confirmation. Most patients are not willing for even 1 week suspense without knowing an answer. Here, doing HCG values for 2 times can come to the rescue. A doubling of HCG value denotes a healthy pregnancy while a less than 15% rise in HCG value in spite of seeing a yolk sac suggests a nonviable pregnancy.**
b. **CRL continues to remain the same size even after one week..**
c. **Absence of embryo with heartbeat ≥ 2 weeks after a scan that showed a gestational sac without a yolk sac. Thus if at initial visit, just a gestational sac is seen, without even a yolk sac being visible, one has to wait for 2 weeks to see an embryo with a heart beat. Thus the patient has to wait for 2 weeks to get an answer or she can do 2 HCG values and look for doubling to avoid the misery of waiting.**
d. **Absence of embryo with heartbeat ≥ 11 days, after a scan that showed a gestational sac with a yolk sac. Thus if a yolk sac is seen, the waiting period can be reduced by 3 days.**
e. **A gestational sac diameter of 25mm or more without a visible embryo. By and large, a diameter of 16 or 17mm itself without embryo can be diagnostic, but a higher figure was probably decided on to allow for inter observer variations.**

Management : **Management can be expectant, medical, or surgical.**

Expectant management: **Expectant management is quoted even up to 13 weeks, but probably it may be too large . Patient should be stable with no infection. Most pregnancies expel by 1 or 2 weeks after diagnosis and it is considered safe and acceptable to wait up to 4 weeks post diagnosis to confirm completion. However, when the choice of expectant management for almost 2 weeks and prolonged follow up or other methods of terminating the pregnancy is put forward to the patient a large majority may not opt for expectant management. This is more so, as the success rate quoted is highly variable, ranging from 25% to 76%.**

Medical management: **Medical management is usually done, either with misoprostol as a single drug regimen, or in combination with mifepristone. It is safe even in patients with previous history of surgery on the uterus, like LSCS or myomectomy.**

FIGO in 2015 has recommended 800 microgram per vaginally every 3 hourly for 2 doses, or 600 microgram sublingually every 3 hours, for 2 doses. 800microgam given orally is equivalent to vaginal administration. However, diarrhoea is more common after oral administration. The dose prescribed by FIGO seems too high for most Indian doctors, who generally give only one dose of 800mcg. Ashok et al in 2002 recommended a second dose to be given if there is no expulsion or bleeding after 3 hours. It was also recommended not to give oral misoprostol if the pregnancy is > 7 weeks old . NICE guidelines also recommend single dose of 800microgram. Some studies have quoted that they give a second dose of misoprostol only after 24 hours if the gestational sac was still present. This seems to be a more prudent approach.

Misoprostol alone with closed cervix require further treatment in 40%. This can be prevented with addition of mifepristone. Mifepristone 200mg has been quoted to be given 24- 36 hours prior to a single dose of misoprostol. There are studies quoting 600mg mifepristone, and this higher dose gives lesser pain severity without additional side effects.

Ambulatory care; If the patient is to be sent home with the drugs, she has to be warned that there may be heavy bleeding or cramps. I have seen patients with severe cramps, where products were stuck at the cervix and the patient has to be called to the hospital where, just removing the piece from the cervix relieves the pain. There are centres, where Ibuprofen in doses of 800mg t.i.d is prescribed to prevent this, but this dose seems too high to the author. Patient has to be warned that it is common to see bleeding for 2 weeks after early pregnancy failure patients treated medically. Studies have shown that such bleeding will not bring down haemoglobin levels.

Proof of completion: Repeat USG 2 weeks after medical treatment should show absence of gestational sac and an endometrial thickness less than 10mm. Some studies quote 15mm as cut off.

Surgical care: Surgical evacuation may seem the final answer. Prolonged bleeding and need for unplanned surgical treatment is higher after medical treatment.

Which patient will respond to medical treatment? Completion of abortion is higher in embryonic than anembryonic pregnancies. Cases with bigger Gestational age, CRL and and smaller sac size are better for success. Higher parity gives lesser chance. Blood flow in the intervillous space predicts higher success rate.

Advice for next pregnancy: Although WHO guidelines in 2005 asked for a wait of 6 months before next pregnancy, newer studies, have quoted highest successful pregnancies in the months immediately after the abortion. Hence the couple need not be asked to wait before attempting another pregnancy. However, it may be prudent to wait for them to be emotionally stable before they undergo another attempt at pregnancy,

Conclusion: Diagnosis and management of missed abortion is undergoing many changes in recent times, and it is good for the practicing gynaecologist to be aware of recent studies in USG, misoprostol doses, etc to be able to give optimum care to the devastated woman who goes through missed abortion.

ARTICLE 6

ANAEMIA IN PREGNANCY - Practical Points

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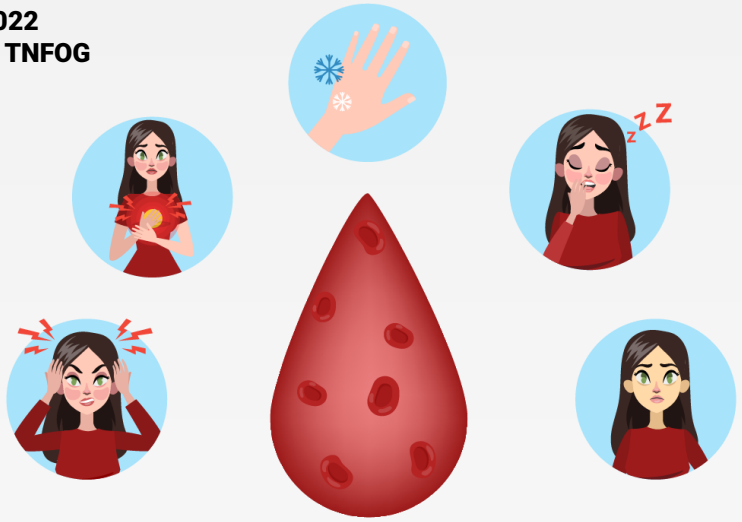
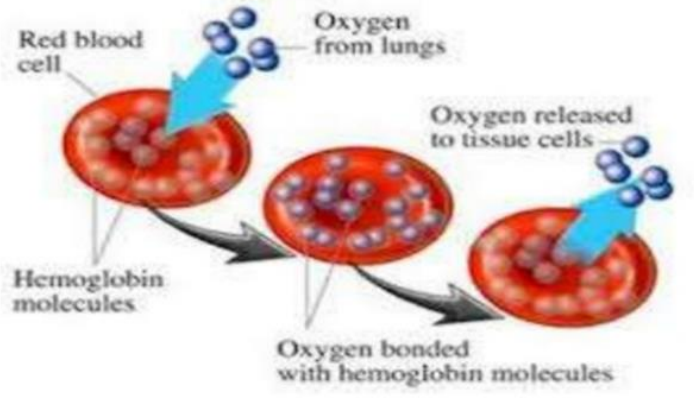
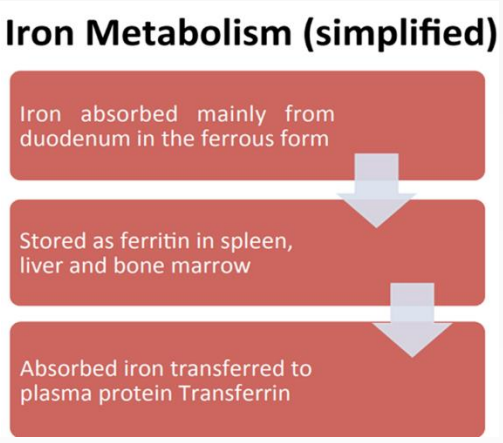
FOGSI VP ELECT 2022
Founder Secretary, TNFOG



Over half of Indian women in reproductive age suffers from ANAEMIA

Anemia is defined as a condition in which the number of red blood cells (RBCs) and their oxygen-carrying capacity is insufficient to meet the body's physiologic needs





Ferritin is a protein-iron complex .Serum ferritin level is an indicator of body iron stores

Center of Disease Control (CDC) defines anemia as pregnancy hemoglobin less than 11 g/dl (Hematocrit; {Hct} < 33%) in the first and third trimester and less than 10.5 g/dl (Hct < 32%) in the second trimester. World Health Organisation (WHO) defines anemia in pregnancy as Hb values less than 11gm/dl. Anaemia is classified as

	ICMR	WHO
Mild	10 – 11 gm/dl	9 – 11 gm/dl
Moderate	7 – 10	7 - 9
Severe	4 – 7	<7
Very severe	<4 decompensated	

Symptoms & signs of Anaemia are as per grading

MILD – Asymptomatic

MODERATE – Weakness, fatigue, loss of appetite, exhaustion, dizziness, breathlessness, Giddiness, indigestion

SEVERE – Palpitation, tachycardia, breathlessness, generalized anasarca, pulmonary oedema

SIGNS - Pallor, blue sclera, pale conjunctiva, skin and nail changes, leg edema, gum and tongue changes (glossitis and stomatitis), tachycardia and functional heart murmur

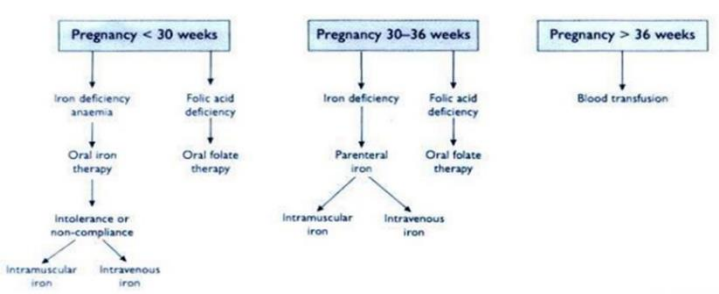
Nutritional iron deficiency anemia (IDA) is the commonest (90%) cause of anemia in pregnancy
Iron, folate and vitamin B12 deficiencies

Other causes are
Acute or chronic blood loss (gastrointestinal bleeding/heavy periods), Infections – malaria, HIV
Chronic diseases – renal, neoplasia, Parasites, Hemolytic anemias – drugs, congenital,
Hemoglobinopathies – sickle cell, thalassemia.

IRON REQUIREMENTS: **0.8 mg - first trimester,**
4–5 mg - second trimester
>6 mg - third trimester

TREATMENT
Diet and oral iron supplementation. Daily oral iron (60 mg) and folic acid (4 mg) with orange juice to enhance its absorption. Iron parenteral given to those not able to tolerate oral iron.

IDA treatment in pregnancy depends on severity & trimester



COMPLICATION
During Pregnancy - Pre eclampsia, Preterm labour, Infection, IUGR, PROM, Cardiac failure
During Labour - Uterine inertia, PPH, Cardiac Failure, Shock
During Puerperium - Puerperal sepsis, Subinvolution, Lactation failure, DIVC, Pulmonary embolism
Foetal – Prematurity & LBW, IUD, Perinatal mortality, Behavioural abnormality later

DURING LABOUR
Make patient comfortable, O2, Sedation & analgesia, prefer vaginal delivery, Cut short second stage, AMSTL, avoid ergometrine, Give Frusemide to avoid pul odema, Arrange for blood products
Keep ready PPH management drugs.
Iron should be continued in Puerperium

Case –
G2 P1 L1,24 weeks GA, Last pregnancy was 1 year back Comes to ANC OP, First visit due to lockdown
No history of IFA intake.

Routine Hb checkup revealed Hb of 9gm% & Smear – Hypochromic Microcytic Anaemia

Oral iron tried for 15 days & RPT HB -8gm.If HB improves continue the same without further evaluation

IF not improved, Evaluate for other causes of microcytosis, mainly Thalassemia with S.FERRITIN,TIBC & ELECTROPHORESIS

	IDA	ACD	Thalass-emia	Sidero-blastic
Severity	Variable	Mild	Mild	Variable
MCV	Decreased	Normal/ decreased	Decreased	Normal/ decreased
S Ferritin	Decreased	Normal/ increased	Normal	Increased
TIBC	Increased	Decreased	Normal	Normal
S Iron	Decreased	Decreased	Normal	Increased
Marrow iron	-	+	+	+

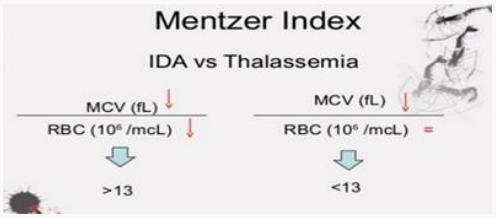
Characteristics	Normal Range	IDA	Thalassaemia
MCV	75-96	Reduced	Very Reduced
Mean Corpuscular Hb	27-23	Reduced	Very Reduced
Mean Corpuscular Hb Conc.	32 -35	Reduced	Normal
Fetal HB (HbF)	<2%	Normal	Raised
HbA2	2-3%	Normal	Raised
Red cell width		high	normal

In low resource settings RDW & Mentzer index Will be useful to differentiate
Combination of low MCV accompanied by elevated RDW can be used as a sufficient evidence to start iron therapy

RDW is a coefficient of variation in size distribution of RBCs

$$\text{Measured as : RDW} = \frac{\text{Standard deviation of MCV} \times 100}{\text{MCV}}$$

Normal value:11.5-14.5%



ELECTROPHORETIC PICTUE IN DIFFERENT ANAEMIA ARE

Thalassemia should be screened in all pregnant women to avoid complications.

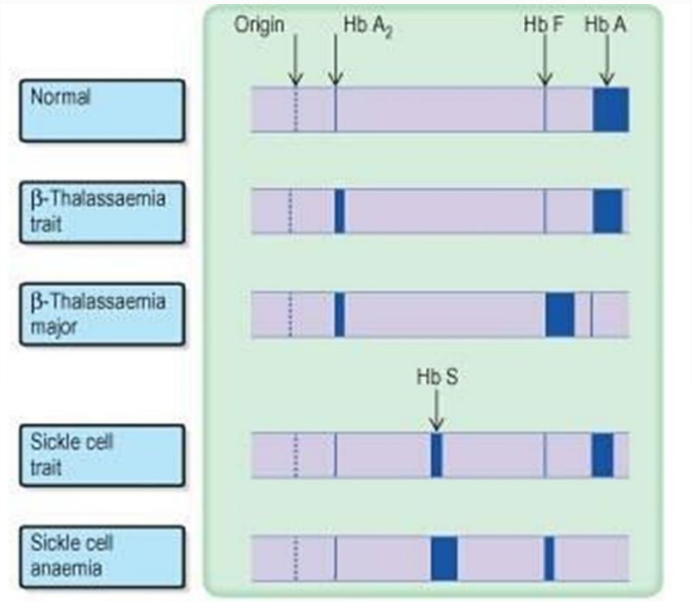
If both parents are thalassemia minor, there is

25% chances of thalassemia major in offspring,

25% chances of normal offspring &

50% chances of minor

A person, who is going to marry a thalassemia minor, should check his/her thalassemia status before
marriage to avoid the birth of thalassemia major.



Prenatal Diagnosis offered when Previous affected child & Both couples are carriers

Chorionic villous sampling/ amniocentesis: mutation identified in the couple/ affected child

Cordocentesis: mutations not identified; couple presents late

IN SICKLE cell anaemia Rpt HB, RFT & Hb S conc. consider exchange transfusion with Hb A to maintain Hb S<30% Sickle cell crisis can happen at any time of pregnancy. Keep ready hydration O2 & PCV

IF PERIPHERAL SMEAR SHOWS MACROCYTOSIS EVALUATE FOR VIT B12 & FOLATE.

Normally both are given with iron to avoid delay
Folate deficiency - 5% cases of anemia in pregnancy. It is associated with hemolytic anemias, hemoglobinopathies, antiepileptics and poor nutrition - 5 mg oral folic acid / day
In cases of vitamin B12 deficiency, 250 µg cyanocobalamin administered parenterally every week.
In severe anemia near term – daily vitamin B12 in a dose of 100 µg should be administered for a week.

ERYTHROPOIETIN used in advanced cases, PPH & jenova gp
Just discussed the practical points of anaemia in preg though many types are there50 to60% mmr is mainly due to anaemia only –

RECOMMENDATIONS
Healthcare workers should be aware that iron deficiency is the most common cause of anaemia in pregnancy and the risk of iron deficiency should be considered in all pregnant women (1B).
Haemoglobin concentration should be routinely measured at booking and at around 28 weeks' gestation (1D).
Systems must be in place for timely review of blood test results, including monitoring the response to therapy (1B).

If anaemia without an obvious other cause is detected, a diagnostic trial of oral iron should be given without delay, with a repeat full blood count in 2–3 weeks (1D).

The optimal diagnostic strategy for anaemia in pregnancy is unknown but unselected routine screening with serum ferritin outside the context of research is not currently recommended (1D).

Serum ferritin should be measured in women with a known haemoglobinopathy to identify concomitant iron deficiency and exclude iron loading states (1D).

Non-anaemic women at risk of iron deficiency should be identified and either started on prophylactic iron empirically or have serum ferritin checked first (1D).

A serum ferritin level of <30 µg/l in pregnancy is indicative of iron deficiency. Levels higher than this do not rule out iron deficiency or depletion (2C).

Other biomarkers of iron status are not currently recommended for screening as there is insufficient validation in pregnancy (2B)

PREVENTION OF ANAEMIA PREGNANCY IS BY
Pre-pregnancy counseling, dietary advice and therapy
Full blood count should be checked at the booking visit & repeat at 28 weeks
High risk mothers and multiple pregnancies HB every month
Weekly iron (60 mg) and folic acid (2.8 mg) should be given to all menstruating women including adolescents (at 12yrs HB should be 12gms)
Deworming – Biannually
will make anaemia free pregnancy

TNFOG MARATHON
CME ON "GDM"

TODAY'S SESSION

Chief Guest

Dr. Cynthia Alexander

Dr. Anjalakshi Chandrasekar
President, TNFOG

Dr. S. Sampath Kumari
Hony, Secretary, TNFOG

Dr. Vijayalakshmi Gnanasekaran
Treasurer, TNFOG

Judges

Dr. Vijayalakshmi Kandasamy

Dr. Nidhi Sharma

Speakers

Dr. K.J. Jeevitha

Dr. N.V. Divya

Chairperson

Dr. Arulmozhi Ramarajan

Speaker

Dr. B.S. Susheela Rani

TNFOG MARATHON
CME ON "GDM"

TODAY'S SESSION

Moderators

Dr. Anjalakshi Chandrasekar
President, TNFOG

Dr. S. Sampath Kumari
Hony, Secretary, TNFOG

Panelists

Dr. Karthigaprabhu

Dr. L. Vijaya

Dr. Ambigai Meena

Dr. L. Shanmugavadivu

Dr. T.V. Chitra

Dr. L.Malarvizhi

Get Exiting Prize!

Be the ***FIRST*** to answer the 'Question' at the end of each session

Coordinator

Dr. Meena Mahalingam

TNFOG MARATHON
CME ON "GDM"

TODAY'S SESSION

Scientific Programme

DURATION	TOPIC	SPEAKERS
04.30 – 04.45 pm	Inauguration	
	Welcome Address	Dr. Anjalakshi Chandrasekar
	Address by Chief Guest	Dr. Cynthia Alexander

Session I

Judges: Dr. Vijayalakshmi Kandasamy & Dr. Nidhi Sharma

Competition Yuva Session

04.45 – 05.00 pm	Screening of Gdm	Dr. K.J.Jeevitha
05.00 – 05.15 pm	HBA1C in Pregnancy	Dr. N.V.Divya
05.15 – 05.25 pm	Q & A	Dr. Meena

Session II

Chairperson: Dr.Arulmozhi Ramarajan

05.25 – 05.45 pm	Update on Gdm	Dr. B.S.Susheela Rani
05.45 – 05.50 pm	Q & A	Dr. Meena

Session III

Moderators: Dr. Anjalakshi Chandrasekar & Dr. S.Sampath Kumari

05.50 – 06.50 pm	Panel Discussion On "Gdm Case Scnearios"	Panelists Dr. V.Ambigai Meena Dr. T.V.Chitra Dr. L.Vijaya Dr. L.Shanmugavadivu Dr. L.Malarvizhi Dr. J.Karthiga Prabhu Dr. Geethalakshmi
06.50 pm	Vote Of Thanks	Dr. Vijayalakshmi Gnanasekaran

For all Registrants,
Certificate will be provided

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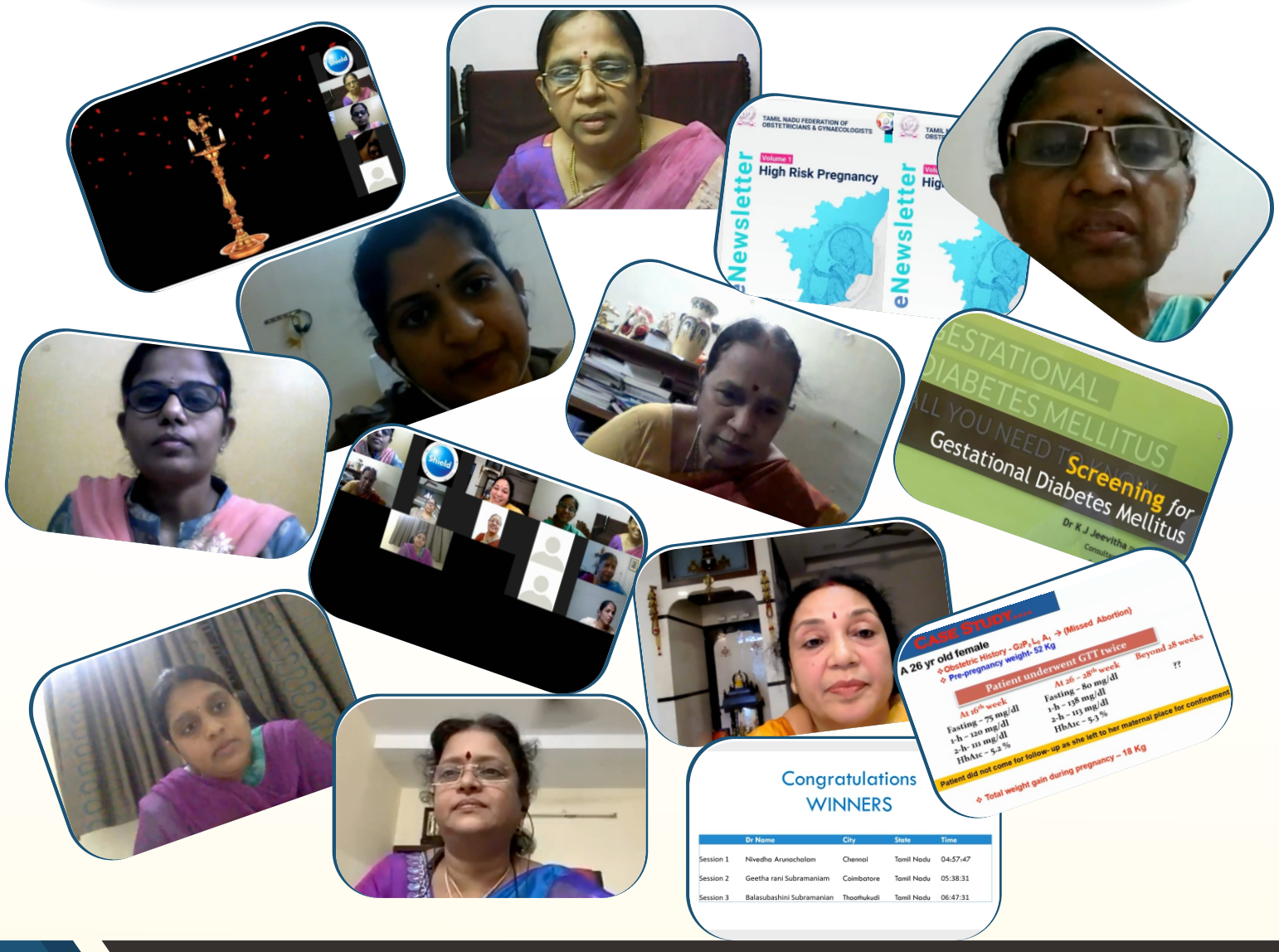
TNFOG MARATHON CME ON "GDM"

Winners

Dr. Nivedha Arunachalam - Chennai

Dr. Geetha Rani Subramaniam - Karthik Medical centre, Coimbatore

Dr. Balasubashini Subramanian - Jeyanth Nallatambi Hospital – Thoothukudi



Upcoming events

TNFOG SERIES MAGALIR NALAM
TNFOG CME ON "MIDLIFE HEALTH"

Date: 22.05.2021(Saturday) | Time: 02.30pm to 05.30pm

PROGRAMME		
DURATION	**TOPIC**	**SPEAKERS**
02.30 – 03.00pm	**INAUGURATION**	
	WELCOME ADDRESS	Dr.ANJALAKSHI CHANDRASEKAR
	ADDRESS BY CHIEF GUEST	Dr.P.K.SHAH
	ADDRESS BY GUEST OF HONOUR	Dr.SUVARNA KHADILKAR
03.00 – 03.40pm	SESSION I	Dr.MALA RAJ
	CHAIRPERSONS	Dr.E.S.USHA
03.00 – 03.15pm	MENOPAUSAL SYMPTOMS	Dr.AMBUJA
03.15 – 03.30pm	NUTRITION IN MENOPAUSE	Dr.LAXMI SHRIKHANDE
03.30 – 03.40pm	**Q & A**	
03.40 – 04.40pm	SESSION II	PANELISTS :
		Dr.T.RAMANI DEVI
	PANEL DISCUSSION ON	Dr.N.PALANIAPPAN
	"MENOPAUSE CASE SCENARIOS"	Dr.M.CHANDRA PONNUSAMY
		Dr.N.SARAVANA KUMAR
	MODERATOR: DR HEPSIBAKIRUBAMANI	Dr.J.AMALA DEVI
		Dr.M.G.DHANALAKSHMI
04.40 – 05.20pm	SESSION III	Dr.NANCY THANU
	CHAIRPERSONS	Dr.S.RADHA MADHAVI
04.40 – 04.55pm	HORMONAL MANAGEMENT IN MIDLIFE	Dr.PARAG BINIWALE
04.55 – 05.10pm	NONHORMONAL MANAGEMENT IN MIDLIFE	Dr.RAGINI AGARWAL
05.10 – 05.20pm	**Q & A**	
05.20 – 05.30pm	UTI INFECTION	Dr.S.SAMPATH KUMARI
05.30pm	VOTE OF THANKS	Dr.VIJAYALAKSHMI GNANASEKARAN

TNFOG SERIES MAGALIR NALAM
TNFOG CME ON "MIDLIFE HEALTH"

Date: 22.05.2021 (Saturday) | Time: 02.30pm to 05.30pm

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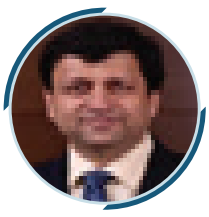
Dr. S.Radha Madhavi
Joint Secretary, TNFOG

SPEAKERS

Dr. Ambuja
President IMS

Dr. Laxmi Shrikhande
Md, Shrikhande Fertility Clinic, Nagpur



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Dr.S.Pethukani
Dr.Archana Arulraj

Vellore
Dr.Elsy Thomas
Dr.R.N.Preethi

Virudhunagar
Dr.Aarthi
Dr.Vinothini

2 ICOG Hour Credited

Join Zoom Meeting: https://torrentpharma.zoom.us/j/93784347997?pwd=bHR5WjlkN3FCLzdKWFRKamZKWVBIdz09
Meeting ID: 937 8434 7997 | **Passcode:** VIVA

Tamilnadu Federation of Obstetricians and Gynaecologists TNFOG

Mid-year E Conference

SAVE THE DATE

19th & 20th JUNE 2021

Workshop, 19th June, Saturday

- ❑ Medicolegal & Research Workshop
- ❑ Infertility Workshop
- ❑ Labour Analgesia Workshop
- ❑ PPH Workshop

Lectures

Debate

Panel

Keynote Address

Oration

Quiz for Pg's

E Paper & E Poster Presentation

on any topic in Obstetricians & Gynaecologists

18th June, Friday

Last Date for **Abstract** Submission

16th June Wednesday

Dr. Anjalakshi Chandrasekar
President, TNFOG

Dr. S. Sampath Kumari
Hony. Secretary, TNFOG

Dr. Vijayalakshmi Gnanasekaran
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Tamilnadu Federation of Obstetricians and Gynaecologist TNFOG

Mid-year E Conference

E Paper & E Poster Presentation

on any topic in Obstetricians & Gynaecologists - 18th June, Friday

Last Date for **Abstract** Submission - 16th June Wednesday

Abstract

Guidelines - Free paper / Poster

- Abstract should not exceed 300 words.
- Abstract must contain Objectives, Methodology, Results & Conclusion.
- For case reports - Introduction, Case presentation, Discussion & Conclusion.
- Registration for conference is a prerequisite for presentation.
- Authors are requested to adhere to the time limit.
- Last date for submission of abstract is 16th June, 2021.
- A copy of abstract must be sent by e-mail to tnfogoffice@gmail.com
- The organising committee reserves the right for accepting / rejecting any paper / poster without assigning any reason.
- The organising committee of "TNFOG" reserves the right to publish all papers presented at the conference.

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