



# AICC RCOG SOUTH ZONE

## Newsletter

### **Dr. Uma Ram** Chairperson

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Member Representative

#### **Dr Shameema KV**

Member Representative

Dear Friends

The Pandemic continues to affect lives and livelihoods and has touched many of us personally one way or the other. We are all coming to terms with the “new normal” as we continue to provide care for the women who come to us and equally provide support for one another. Mental well being has come to focus for many, during this extraordinary time, in ways it may not have under normal circumstances.

The idea to focus on perinatal mental health was initiated with a workshop on this topic during our annual conference in Bangalore in November last year. The response to that workshop and the need for increasing awareness and expertise in perinatal mental health among obstetricians has motivated us to put together a course which has taken an online avatar in the present circumstances. I am extremely grateful for the commitment shown by the faculty who have themselves undergone a short certification course in perinatal psychiatry.

I am delighted that we have been able to offer this course along with the Perinatal Psychiatry Task force of the Indian Psychiatry Society. The course has been approved for 2 credit points per session by ICOG. The first course filled up very quickly and we have people signed up for the next edition already. We hope to be able to do this at least 4 times a year going forward.

There are is a webinar on menopausal health on the 29th of August in association with the India Liason Group and I look forward to meeting all of you on that platform. There are other online events planned and information on these will reach you by email.

Warm regard

**Dr.Uma Ram**

Chairperson, AICC RCOG South Zone

## Understanding The Cerebro Placental Ratio (CPR)

### The Fetal Circulation & The CP Ratio:

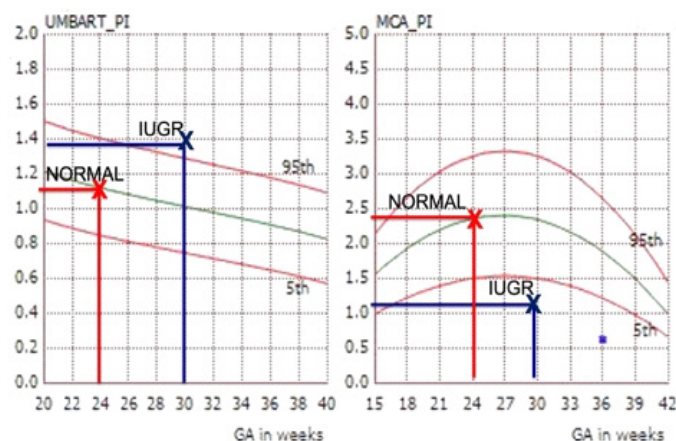
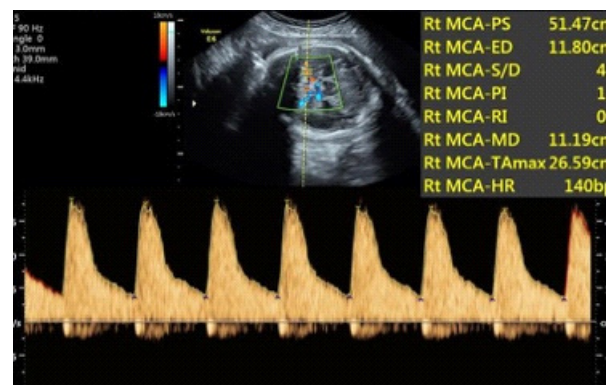
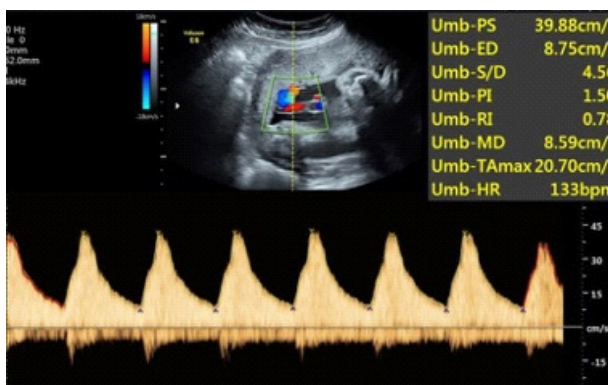
The fetal circulation is assessed by doing doppler of the umbilical artery (UMB.A), the middle cerebral artery and the ductus venosus and is used as a test of fetal well-being. The tertiary villous arteries in the placenta is the vascular bed of the umbilical arteries. The cerebral circulation is the vascular bed of the middle cerebral artery (MCA). The vascular beds offer some resistance to the flow of blood during diastolic phase of the heart. Under normal physiological conditions, with advancing gestational age, with increasing size of the placenta, the number of tertiary villous arteries increase. This results in a larger vascular bed thereby reducing resistance to flow. The cerebral circulation on the other hand, is a high resistance circulation throughout the second and third trimesters and only in the late third trimester there may be an increase in cerebral flow in normally growing pregnancies. In summary, the Placental resistance decreases with advancing gestational age, whereas the cerebral resistance remains high throughout the pregnancy.

### How Is CP Ratio Measured ?

The resistances of the UMB A and the MCA can be measured by doing pulsed doppler interrogation of these vessels and measuring the pulsatility index (PI) which is the standard index of vascular resistance in fetal doppler. The PI is calculated using the formula  $PI = \frac{\text{Systolic velocity} - \text{Diastolic velocity}}{\text{Mean velocity}}$ . Higher the PI, higher the resistance and lower the PI lower the resistance. Revisiting normal physiology as described above, it is obvious that in a normally growing fetus, the PI of the UMB A will reduce with advancing gestation whereas the PI of the MCA will not show very significant change.

The cerebro placental ratio (CPR), as the name implies is calculated by the formula

Since the MCA PI will always be higher than the UMB A PI in normally growing fetuses, the CP ratio is usually more than 1



## What Is The Value Of CP Ratio?

The value of doppler for assessment of fetal well being and predicting adverse outcome in the setting of fetal growth restriction has been well documented and has also led to the development of a “stage based management system” by Gratacos et al which provides a surveillance pathway and timing of delivery based on various doppler parameters . The question now arises whether CPR is better than UMB A doppler and whether CPR is useful as a screening tool in low risk pregnancies. The potential use of CPR stems from our understanding of hemodynamic changes in fetal growth restriction (FGR) . In FGR , the placental resistance increases and this results in redistribution of blood in the fetal circulation from the peripheral to central resulting in a “brain sparing effect” . This is seen as an increase in UMB A PI and decrease in the MCA PI. and a decreasing CPR. Evidence from a recent meta analysis by Volgraff et al (2018), has shown that CPR outperformed Umbilical artery and MCA doppler in predicting composite adverse outcomes and emergency delivery for fetal distress, but concluded that further clinical trials are required to prove the effectiveness of CPR in guiding clinical management .

### Normal CP Ratio:

While the CP ratio in normal pregnancies is always  $>1.0$ , gestational age specific reference ranges are available (Baschat, Ebbing, Umarwal). The most recently published article by Marta Rial-Crestelo et al. has shown that the 50th centile CPR at 24 weeks is 1.62 which increases to 1.98 at 34 weeks and reduces gradually to 1.82 at 40 weeks and 1.7 at 42 weeks and the 5th. Centile CPR varies from 1.10 at 24 weeks to 1.25 at 34 weeks and reduces to 1.19 at 40 weeks . This study also observed that CPR negatively influenced by maternal BMI . They observed that at the 37th week, the 5th centile would be 1.39, 1.32, and 1.25 for women with a BMI of 20, 25, and 30, respectively. This suggests that going forward we may have to incorporate BMI while interpreting CPR. However further validation is awaited and this may a potential area for research in our local population.

## When To Use The CP Ratio – Early FGR, Late Onset FGR Or Routinely At 35-37 Wks For All Pregnancies?

### Early FGR:

In early onset FGR( $<32$  weeks) the CPR alteration is seen in early stage of placental insufficiency. The doppler cascade in early onset FGRs is monitored by the progressive changes in the umbilical artery and ductus venosus and hence the value of CPR in monitoring these pregnancies is low. CPR may be useful in a small subset of patients presenting for the first time in the second trimester with unsure dates. The standard protocol is to date the pregnancy using head circumference . However, the fetus could potentially be SGA or early FGR and this would be missed if dates are corrected. In such women, if the umbilical artery shows high resistance (PI $>95$ th centile) if the CPR is also abnormal, then a diagnosis of placental insufficiency may be entertained and caution exercised before the dates are corrected.

### Late FGR:

Late FGR ( $>32$  weeks), is more common than early FGR , difficult to diagnose and has a larger proportion of babies with composite adverse outcomes as compared with early FGR. In late FGR, the degree of placental insufficiency is low and hence then umbilical artery may not show significant changes or the cascade of High resistance – absent diastolic flow and reversed diastolic flow as seen in early FGRs. However, the brain sparing effect is seen as a reduced PI in the MCA and reduced CPR. Several studies have shown that CPR is better than the MCA PI or UMB A PI in Late FGR.

The study by Oros et al shows that late-onset SGA fetuses with normal Doppler velocimetry upon diagnosis show progression from 37 weeks’ gestation with worsening CPR followed by a decrease in MCA-PI. Hence the change in CPR is more likely to be identified in cases of late FGR rather than the changes in the umbilical artery.

## CPR In Routine Screening Vs Suspected FGR

In a study of 47,211 pregnancies, Akolkar et al have shown that In pregnancies undergoing routine antenatal assessment at 35–37 weeks' gestation, measurement of cerebroplacental ratio provides poor prediction of adverse perinatal outcome in both small for gestational age and appropriate for gestational age fetuses.

A meta analysis by Conde-Agudelo (2018) showed that the predictive accuracy of CPR was moderate to high for perinatal death in suspected FGR cases with a pooled sensitivity of 93% and specificity of 76%, The positive LR was 3.9 and negative LR was 0.09. However the sensitivity was low for composite of adverse perinatal outcomes (Cesarean section for non-reassuring fetal status, 5-min Apgar score < 7, admission to the neonatal intensive care unit, neonatal acidosis and neonatal morbidity).

## Efficacy Of CPR And Timing Of Delivery

Most studies have used CPR <5th centile for GA as the cut off for assessing the efficacy of CPR in predicting adverse neonatal outcomes. Bligh et al (2018) published a study of 431 women which included those who had intrapartum fetal compromise and had composite admission to neonatal unit. In this study they used CPR <10th centile as the cut off and demonstrated a sensitivity of 55% and specificity of 87.9% for prediction of Cesarean section for intrapartum fetal compromise and a sensitivity of 22%, and specificity of 88% for prediction of adverse neonatal outcome. The other major area of concern is the observation that abnormal CPR may be associated with neurodevelopment outcome at 3 years (Cathy Montieth et al).

In early FGR, CPR is not used as a parameter for timing of delivery, as the changes occur in early stages of placental insufficiency. The objective in early FGR is to gain gestational age and hence the threshold delivery is abnormal Ductus venosus doppler and biophysical profile. In late onset FGR, UA Doppler >95th, MCA <5th centile, CPR <5th centile, or uterine artery >95th centile are used as thresholds for timing of delivery between 34–38 weeks. Most national guidelines recommend the use of cerebral doppler (MCA PI, CPR) for timing of delivery after 34 weeks.

## Conclusion:

There is now universal acceptance that CPR changes are more profound as compared to MCA or UMB artery while monitoring fetuses with FGR. In early FGR, an abnormal CPR may help to classify fetuses as SGA or FGR. In early FGR, CPR is abnormal in the early stage of placental insufficiency. CPR may be a better parameter to predict perinatal death in suspected cases of late FGR. Using a CPR cutoff of 10th centile may yield better results but this has to be validated by randomized controlled trials. Timing of delivery in late onset FGR and long term neurodevelopmental outcome in the setting of abnormal CPR are potential areas of research in the Indian context.

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### Author



**Dr S.Suresh Mb.BS.,FRCOG(hon) DSc(hon)**

Director Mediscan Systems

Visiting Prof. in Perinatology SRIHER Chennai & PSG Institute of Medical Sciences Coimbatore

# Reflections on gynaecological cancer in the time of COVID

## Dear Colleagues

The first 7 months of 2020 have been eventful, life changing, almost cataclysmic! In the UK, we had a period of watchful waiting, when we heard about the effects of the pandemic in China and then nearer countries – Spain, Italy, Germany, France. Then, in mid-March, it felt as if a deluge had hit us. It has been challenging on so many levels for all of us – the social isolation, the fear that ordinary activities – shopping, socializing evoked, the economic fallout that many will have to cope with, the disruption of schooling and university for youngsters. Personally, I found the inability to shake hands, hug and comfort cancer patients quite difficult and alien. Luckily, we seem to be over the first surge in the UK, although the autumn and winter months will undoubtedly bring new challenges.

From a gynaecological cancer point of view, we have had to react very swiftly in the BGCS. We worked with the RCOG to produce our joint guidance on ‘Management of gynaecological cancers during the pandemic’. This was a comprehensive view of how diagnosis, surgical and oncological management, follow-up had to change during the pandemic. We have revised this as the situation evolved and as evidence on risks for instance have become clearer. [https://www.bgcs.org.uk/wp-content/uploads/2020/05/BGCS-guidance-v-3-final\\_-1.pdf](https://www.bgcs.org.uk/wp-content/uploads/2020/05/BGCS-guidance-v-3-final_-1.pdf)

We have also worked with patient charities and other stakeholders to develop patient facing communications, including discussing the risks and precautions needed during COVID. More information is available on <https://www.bgcs.org.uk/covid-19/>

Finally, we have worked with the RCOG and the BSGE to produce guidance on Abnormal uterine bleeding and inputted into the RCOG recovery document.

In the UK, the picture is very variable in terms of the impact of COVID on gynaecological cancer patients. In my own center at Birmingham, we have been able to largely provide care as usual with some exceptions. This is because we very quickly segregated cancer surgery at a ‘COVID-free’ site, away from the general acute ‘hot’ hospital. Others, working across the UK have been less fortunate.

However, we know that many patients will not have presented with symptoms during the last few months. So, we expect to see a higher proportion of women with advanced cancers or with poorer general condition (performance status) as a result of this delay in presentation. If I have one message for you, that is to emphasize that we need to encourage patients to present with symptoms of gynaecological cancer. We now know how to investigate and safely manage patients with gynaecological cancer and we should not allow the fear of COVID to disrupt effective cancer care.

And finally, I will urge you all to pause and take a break when you can. The ramifications of COVID in Gynaecological Oncology will last for the next 12 – 18 months at least and we will need endurance to cope with the months ahead. With all good wishes and stay safe!

The cerebro placental ratio (CPR) , as the name implies is calculated by the formula

## Author



### Prof Sudha Sundar

Professor of Gynaecological Cancer

Pan Birmingham gynaecological cancer centre, City Hospital

President of the British Gynaecological Cancer Society

## Right Adnexal Mass: Be prepared for a surprise

A 36-year-old parous woman referred to us with intermittent right lower abdominal pain for four weeks. The pain was of moderate to severe intensity. Her cycles were regular but heavy. She had undergone a suction evacuation for missed miscarriage five weeks prior to this presentation. She had two previous caesarean sections and her last child birth was 6 years ago.

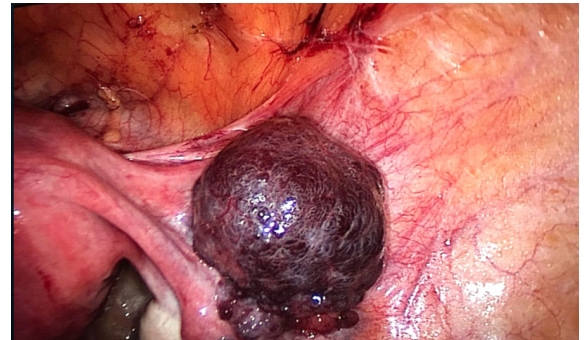
A prior ultrasound showed an adenomyotic uterus with a possibility of a dermoid cyst of the right ovary 5.6x3.8cm with a differential of ectopic pregnancy with possible tubal abortion. There was no other relevant medical or family history.

On examination, she was hemodynamically stable. There was tenderness in the right iliac fossa and right adnexal tenderness. The routine blood tests were within normal limits and Beta HCG was negative. A transvaginal ultrasound showed adenomyosis with dilated pelvic vasculature in the right adnexa. No adnexal mass was identified. A CT scan with contrast was requested due to the inconclusive results which showed a possibility of right haematosalpinx with a differential diagnosis of a chronic ectopic and an endometriotic cyst. (Fig 1)



At this point our differential diagnoses were Chronic ectopic, haematosalpinx, torsion of the fallopian tube, endometriotic cyst, torted ovarian cyst and arteriovenous malformation.

In view of the pain, a diagnostic laparoscopy was done which showed a vascular growth or 5x 6 cms on the right anterior aspect of the mesosalpinx partly attached to the serosa of the right tube (Fig 2). Tortuous pelvic vasculature was noted in the broad ligament. The uterus and the ovaries were normal. A right salpingectomy was done in view of the vascularity with complete excision of the lesion. The specimen was retrieved through an endo-bag.



A right salpingectomy was done in view of the vascularity with complete excision of the lesion. The specimen was retrieved through an endo-bag.

Guess what was the final diagnosis?

The HPE was reported as lymphangioma the right fallopian tube.

### Discussion

Lymphangiomas are extremely rare benign tumors of the fallopian tube. They usually occur in the first two years of life and are due to developmental failure of the lymphatic system or obstruction of the lymphatic system due to fibrosis of lymph channels. They are usually not identified unless they become symptomatic or grow large in size. Although the exact causation is not known, they are likely of neoplastic or reactive etiology. Symptoms may include abdominal pain, abdominal distention, nausea, vomiting and loss of appetite. The complications include compression and infiltration of vital structures, bleeding, rupture and torsion. Diagnosis is either by MRI or CT scan, but definitive diagnosis is by histopathological examination. Complete excision is recommended. Following surgical excision, two-yearly follow up is required due to a high chance of recurrence and their occasional malignant behaviour.

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3. Metin Akbulut, Esra Canan Kelten, Mehmet Emin Soysal Cystic lymphangioma of the fallopian tube: Report of A Case. Firat Tip Dergisi 2008;13(3);224-225

## Author

**Dr Shravya Manohar**  
**Dr Sumana Manohar**  
**Dr Srikala Doddareddy**

## Quiz

### Test your knowledge on Indian Independence

1. The Indian tri colour is based on the Swaraj Flag. What is the difference between our national flag and the swaraj flag ?
2. When was Jana gana Mana adopted as the national anthem ?
3. When was Jana Gana Mana first sung ?
4. Which was the last state to become a part of the Indian union ?
5. Who drew the line partitioning Pakistan and India ?



## Recent Events

Webinar on **Hypertensive Disorders of Pregnancy** organized by AICC RCOG South and East Zone in association with PerkinElmer Genomics was held on Wednesday, July 29, 2020. During the webinar following topics were discussed:

- Screening-Current recommendations and evidence: Dr. Seetha Ramamurthy Pal
- Changes in HDP management- Current status: Dr. Suchitra Pandit, followed by the panel discussion

Scientific Webinar on **Hyperglycemia In Pregnancy: Fetal Impact** organized by AICC RCOG South and East Zone & sponsored by Shield Healthcare was held on Wednesday, July 22, 2020. During the webinar following topics were discussed:

- Fetal Anomalies In Diabetic Pregnancies: Dr. Chinmayee Ratha
- Fetal Growth In Diabetic Pregnancies: Dr. Uma Ram
- Timing Delivery In Diabetic Pregnancies Dr. Seetha Ramamurthy Pal
- Chaired & moderated by Dr. Hema Divakar



## Recent Events



# Perinatal Mental Health

## A Short Course for Obstetricians

organised by  
All-India Coordinating Committee RCOG - South Zone  
Indian Psychiatric Society - Perinatal Psychiatry Task Force

2 ICOG points awarded for each session



**Dr. Uma Ram**  
Chairperson, IICC, RCOG - South Zone

AICC RCOG South Zone is happy to launch a short course on Perinatal Mental Health along with the Indian Psychiatric Society. This online program aims to build and reinforce knowledge on key practical aspects of mental health and wellbeing which is a vital part of pregnancy care. The course is accredited by ICOG and eligible for 2 for credit points per session. Each course will take 25 candidates. Contact [ghar@aicccogsz.com](mailto:ghar@aicccogsz.com) for registrations and details.

## Psychiatry Faculty



**Dr. Prabha Chandra**  
Professor of Psychiatry  
MIMS, Bangalore  
Course Coordinator



**Dr. Ashlesha Bogaiah**  
Perinatal Psychiatrist  
The Green Oak Institute, Bangalore



**Dr. Smita Parital**  
Consultant & Director  
Dhanwanthri Hospital, Raipur



**Dr. Shubhangi Dere**  
Assistant Professor  
MIMS Medical College  
Founder  
Swast Mind Care Clinic, New Hanuman



**Dr. Sandip Deshpande**  
Consultant Psychiatrist, Sexual  
and relationship Therapist  
Bangalore

Supported by IPS President Dr. P. K. Dalal & Hon Secretary Dr. T. S. Rao

## Part 1: Pre-Existing Mental Health Disorders

25<sup>th</sup> August, 2020 (Tuesday)

14:30 – 17:30

Chairpersons: **Dr. Uma Ram & Dr. Georgy Jay Eracht**

14:30 – 14:45	Importance of Mental Health in Obstetric practice
14:45 – 15:05	Screening tools for a busy OPD
15:05 – 15:35	Perinatal impact of common psychiatric disorders
15:35 – 16:20	Psychotropic medications: teratogenicity and beyond
16:20 – 16:50	Psychiatric emergencies: thinking on your feet
16:50 – 17:20	Discussion
17:20 – 17:30	Recap

## Part 2: Pregnancy-Specific Mental Health Issues

8<sup>th</sup> September, 2020 (Tuesday)

14:30 – 17:30

Chairpersons: **Dr. Uma Ram & Dr. Chinnayee Ratha**

14:30 – 15:00	Anxiety disorders
15:00 – 15:45	Postpartum depression
15:45 – 16:30	Sensitive handling of Perinatal grief & loss
16:30 – 17:00	Psych-social issues: interpersonal violence, substance misuse & COVID
17:00 – 17:10	Recap
17:10 – 17:30	Discussion & Concluding Remarks

## Obstetric Faculty



**Dr. Lakshmi Shivamogundaram**  
Senior Consultant  
Madras Medical Mission, Chennai  
Course Coordinator



**Dr. Madhulatha Vignaneswar**  
Consultant  
Motherhood Hospitals, Bangalore



**Dr. Savithri Ganungu A.**  
Professor  
Hiremathra Gandhi Medical College & R. S. S. Baski Vellore Institute of Technology, Pondicherry



**Dr. Usha Madhusree**  
Consultant  
Bright by Rainbow Hospitals, Vijayawada



**Dr. S. Mayadevi Kurup**  
Senior Consultant  
Asler Medcity, Kochi



**Dr. Aruna Murugeshwar**  
Associate Director & Senior  
Consultant  
Fortis La Femme Hospital, Bangalore



**Dr. Ravi Bhanu**  
Consultant  
Sreehasthi Clinic & Hospital, Chennai



**Dr. Shanmuga Anandapathi**  
Senior Consultant  
Asler Medcity, Kochi



**Dr. Varalakshmi Nandappa**  
Consultant  
Bright by Rainbow Hospitals, Hyderabad

## Upcoming Events

# Webinar on Menopause

29th August 5.30 pm - 7.30 pm

### Chair Persons

**Dr. Jyotsna Acharya and Dr. Uma Ram**

### Lectures

Managing Perimenopausal bleeding  
**Prof Mary Ann Lumsden**

Prescribing HRT for special situations  
**Dr. Shelia Radhakrishnan**

Menopause and Cognition  
**Dr. Jaishree Gajaraj**

### Panel Discussion

**Case Based Management**

### Moderators

**Dr. Jyothi Unni and Dr. Lekshmi Unni**

### Panelists

**Dr. Veena Kaul, Dr. Mayadevi Kurup, Dr. Jayashree Gopal, Dr. Fehmida Banu**

### Answers to Quiz

1. The swaraj flag had the chakra in the centre
2. Jan 24th 1950
3. first sung on the second day of the annual conference of the Indian National Congress (INC) in Calcutta on December 27, 1911.
4. Hyderabad
5. Sir Cyrill Radcliffe