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## Indian Journal of Obstetrics and Gynecology

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### From the Editors Desk...

“The price of anything is the amount of life you exchange for it” – Henry David Thoreau

Dear readers,

Greetings!

Welcome to IJOGR ...and world of academics... Volume 12, Issue 1, January-March 2025

Indian journal of obstetrics and gynaecological research is an attempt to give pen to researchers, academicians, and residents to give words to their thoughts....

We have tried to accommodate from research article to case study- a whole bunch of bouquet.

Here in this issue, we have ...

Review and Original Research Article from all over India as well as international....

### Review Articles.....

Postpartum depression (PPD) is a mood disorder with depressive symptoms during perinatal period. It negatively impacts women, child, family, and society and hence must be promptly diagnosed and adequately treated. Etiopathogenesis of postpartum depression is not known but is hypothesized to be a complex interplay among various maternal, biological, psychosocial, and genetic factors. Maternal factors encompass high or tender age at pregnancy, while the biological factors include fluctuation of hormones like estrogen and progesterone during perinatal period and dysfunction of HPA-axis. Recognized psychosocial factors are history of depression, symptoms of depression or anxiety during pregnancy, stressful life events and postpartum blue symptoms, single status, lower educational level, multiple offsprings, poor marital relationship and low socioeconomic status. Genetic variations in hemicentin-1 (HMCN1) gene have been found to have increased susceptibility to PPD. Women with PPD presents with fatigue, sadness anhedonia, impaired concentration, irritability, guilt, psychomotor agitation, sleep disturbances and changes in appetite and weight. Management of PPD is a multidisciplinary approach and encompasses complementary health practices, psychological interventions, pharmacotherapy, and somatic therapy. Complementary health practices are educating women about self-care and about growing treatment-seeking behaviour. Cognitive behavioral therapy (CBT) and Interpersonal psychotherapy (IPT) are specifically adapted and well-studied psychological interventions for PPD. Many drugs like antidepressants, estrogen and progesterone have been used for long time for treatment of PPD but their use has not been approved by any regulatory authorities. The First drug approved by U.S. Food and Drug Administration (US FDA) for PPD was brexanolone which is an injectable. Zuranolone is recent addition to this approved category and is an oral one. Both brexanolone and zuranolone are indicated for severe PPD where psychological interventions and antidepressants are usually ineffective.

Pharmacotherapy of postpartum depression: An update by Kumari Pallavi et al from Dept. of Pharmacology, Indira Gandhi Institute of Medical Sciences, Patna, Bihar, Dept. of Anatomy, ESI-PGIMS, Medical College, Kolkata, West Bengal, Dept. of Pharmacology, All India Institute of Medical Sciences, Patna, Bihar, India.

Perimenopausal women experience various physiological changes that may affect cervical health. Colposcopy is a diagnostic tool used to examine an illuminated, magnified view of the cervix and the tissues of the vagina and vulva. Histopathological examination (HPE) is a gold standard for diagnosing cervical lesions.

Correlation of colposcopic findings and histopathologic examinations in perimenopausal women by Nishitha Gandavaram et al from Dept. of Obstetrics and Gynaecology, Saveetha Medical College and Hospital, Chennai, Tamil Nadu, India.

### Original Article are .....

Pregnancy-Induced Hypertension (PIH) is a significant complication affecting pregnant women, with potential severe outcomes for both mother and fetus. This study investigates the relationship between serum  $\beta$ -hCG levels and the risk of PIH, aiming to determine if elevated  $\beta$ -hCG can serve as an early indicator for PIH.

Early prediction of gestational hypertension using  $\beta$ -hCG Levels: A cross-sectional study in a tertiary care hospital of Maharashtra, India by Swapnali Sansare et al from Dept. of Obstetrics and Gynaecology, Dr. D.Y. Patil Medical College Hospital and Research Center, Pune, Maharashtra, India.

Male infertility is arising as a major problem in past few years. Decline in semen quality is one of the main reasons. Hormones play important role in regulation of male reproductive function by influencing spermatogenesis, and in that context. Thyroid hormones have apivotal role to play. Thus, in present study effect of thyroid abnormalities on semen quality was explored.



Thyroid dysfunction and its impact on semen quality by Deeba Khanam et al from Dept. of Obstetrics and Gynecology, Jawahar Lal Nehru Medical College and Hospital Aligarh Muslim University, Aligarh, Uttar Pradesh, India.

Pelvic organ prolapse (POP) is a condition in which one or more of the female pelvic organs, such as the bladder, uterus, vaginal cuff, rectum, and intestine dip into the vagina. The muscles and tissues surrounding the uterus weakens resulting in uterine prolapse.

Correlation of symptoms and its effects in pelvic organ support defects by pelvic organ prolapse - Quantification {POP-Q} in a teaching institution in North Kerala, India by Shameema Puthuprakat et al from Dept. of Obstetrics and Gynecology, KMCT Medical College, Kozhikode, Kerala & Dept. of Obstetrics and Gynecology, Malabar Medical College, Kozhikode, Kerala, India.

Most popular specimen retrieval techniques in laparoscopic myomectomy are manual vaginal morcellation and power morcellation. We this was a prospective study from October 2018 - Sep 2022. A total of 150 patients underwent laparoscopic myomectomy. Specimen extraction time was about  $9.744 \pm 1.076$  minutes in the vaginal morcellation group and  $77.366 \pm 324.067$  minutes in power morcellation group (p value 0.062). Cost of surgery in US dollars was  $954.550 \pm 2.272$  USD in vaginal morcellation group and  $1266.329 \pm 215.246$  USD in power morcellation group (p value < 0.001). About  $0.013 \pm 0.112$  patients in vaginal morcellation group required of additional analgesia post operatively. This was required in about  $0.171 \pm 0.379$  patients in power morcellation group (p value < 0.001). Patients who had vaginal morcellation were discharge ready at  $128.625 \pm 13.664$  minutes. Where as this was  $182.561 \pm 30.381$  minutes in power morcellation group (p value of < 0.001). About  $0.013 \pm 0.112$  patients in the vaginal morcellation group had wound related adverse effects. About  $0.171 \pm 0.379$  patients had such adverse effects in the power morcellation group (p value < 0.001). From our findings we conclude that Manual vaginal morcellation is a much quicker, inexpensive and less painful alternative to power morcellation to extract specimens after laparoscopic myomectomy. Manual vaginal morcellation also has less wound related complications with quicker post operative discharge readiness.

Comparison of manual vaginal morcellation with laparoscopic power morcellation in specimen retrieval during laparoscopic myomectomy by Muralikrishnan Nambiar et al from Dept. of Obstetrics and Gynaecology, Meenakshamma Memorial Hospital, Payyanur, Kerala, Dept. of Obstetrics and Gynaecology, Kasturba Medical College, Mangalore, Dept. of Community Medicine, Kasturba Medical College, Mangaluru, Karnataka & Khaja Bandanawaz University, Kalaburagi, Karnataka, India.

Amniotic fluid is a dynamic medium surrounding the fetus in the amniotic cavity. Decreased amniotic fluid volume of less than 8cm is known as Oligohydramnios. Increasing maternal plasma volume and improving uteroplacental perfusion using nitric oxide (NO) donors is thought to increase the AFI. The present study compares the effect oral arginine supplementation with the combined effect of oral arginine and IV Hydration in increasing AFI in patients far from term and its effect on prolongation of duration of pregnancy.

Oral arginine versus IV fructodex and oral arginine in the treatment of borderline idiopathic oligohydramnios: A randomised comparative study by Samya Janarthanam et al from Dept. of Obstetrics and Gynecology, Mahatma Gandhi Medical College and Research Institute, Pondicherry, India.

The most efficient utilization of blood in contemporary treatments reduces transfusion- related risks and enhances the management of blood inventories. It is essential to examine the present transfusion practices within Obstetrics and Gynaecology to guarantee that blood is utilized appropriately. The aim of this study was to evaluate the appropriateness of the use of blood and blood products in obstetrics and gynaecology at a tertiary care hospital.

Evaluation of blood and blood product utilisation practice in obstetrics and gynaecology: A prospective study in a tertiary care hospital by Satyam Sarkar et al from Dept. of Immunohematology and Blood Transfusion Medicine, Symbiosis Medical College for Women (SMCW), Pune, Maharashtra & Dept. of Pathology, Zydus Medical College and Hospital, Gujarat, India.

Fetal growth restriction (FGR) poses significant challenges in modern obstetrics, with its prevalence notably high in India. Identifying the progression patterns of Doppler parameters in severe FGR pregnancies caused by placental insufficiency remains underexplored, particularly in the Indian context.

Changes in doppler parameters in severe fetal growth restriction and its association with perinatal outcomes in an Indian tertiary care centre by Neha Khatri et al from Dept. of Obstetrics and Gynaecology, Sri Ganga Ram Hospital, Dept. of Obstetrics and Gynaecology, Maulana Azad Medical College and Associated Lok Nayak Hospital, New Delhi, India.

Contraception is vital for reducing unwanted pregnancies and promoting healthy living among women. The postpartum period offers a unique opportunity to implement birth spacing strategies that can significantly improve maternal and infant health outcomes. Despite the availability of effective contraceptive methods, many women do not use contraception postpartum. This study aims to assess knowledge, attitude about post-partum contraception among post-partum women in Pune to identify gaps and barriers to effective contraceptive use. Maximum need of contraception is in post-partum period to prevent pregnancies in lactational amenorrhoea & to reduce risks related to short interpregnancy intervals.

Postpartum contraception: Where do we stand in 2024 by Shilpa Kshirsagar et al from Dept. of Obstetrics & Gynecology, Dr. D Y Patil Medical College hospital and Research Center, Pune, Maharashtra, India.

Eclampsia, a severe complication of preeclampsia, remains a significant cause of maternal and perinatal mortality, especially in low-resource settings. Characterized by convulsive seizures, eclampsia can lead to severe maternal complications such as HELLP syndrome, placental abruption, and postpartum hemorrhage, as well as adverse neonatal outcomes like prematurity, low birth weight, and neonatal death. This study aimed to assess the risk factors, treatment strategies, and maternal-fetal outcomes associated with eclampsia in a tertiary care setting.

Comprehensive analysis of eclampsia: Risk factors, complications, interventions, and feto-maternal outcomes by Diya Shah et al from Dept. of Obstetrics and Gynaecology, Sapthagiri Institute of Medical Science and Research Center, Bangalore, Karnataka, & Sapthagiri Institute of Medical Science and Research Center, Bangalore, Karnataka, India.

Amniotic fluid around the fetus serves purposes like normal fetal growth, neuro-musculoskeletal development and is responsible for better fetal outcomes. Oligohydramnios is a decreased amount of amniotic fluid with an amniotic fluid index (AFI) <5 cm. Borderline oligohydramnios is an amniotic fluid index between 5.1 to 8 cm. L-arginine, a semi-essential amino acid used in oligohydramnios, has been suggested to be beneficial in improving the amniotic fluid

index. Hence, this study was planned to evaluate maternal outcomes in patients of oligohydramnios who received L-arginine as well as those who came to emergency delivery and were not administered L-arginine.

A prospective observational study of maternal outcomes in patients with Oligohydramnios by Snehal Shrikant Anturlikar et al from Dept. of Pharmacology, Parul Institute of Medical Sciences and Research, Vadodara, Gujarat, India.

Preeclampsia complicates 3-5% of all pregnancies and it is an important cause of maternal and fetal morbidity and mortality. The risks related by preeclampsia to the mother include cerebrovascular accidents, placental abruption, postpartum haemorrhage, pulmonary edema and those to the fetus include preterm birth (iatrogenic or spontaneous), intrauterine growth restriction (IUGR), intrauterine fetal demise (IUD) and birth asphyxia. Obesity, age (women younger than 20 and older than 40), primigravidas, multiple pregnancy, renal disease, diabetes, gestational diabetes, family history and previous history of preeclampsia, certain autoimmune disorders are the risk factors for preeclampsia. 1 For reducing the morbidity and mortality associated with preeclampsia knowledge of the risk factors is important.

Thyroid status in preeclamptic patients and in normal pregnancy: A case control Study by Piyush Joshi et al from Dept. of Cardiology, Priyanka Hospital and Cardiac Center, Jaipur, Rajasthan, Dept. of Obstetrics & Gynaecology, Priyanka Hospital and Cardiac Center, Jaipur & Dept. of Medicine, Geetanjali Medical College & Hospital, Udaipur, Rajasthan, India.

Polycystic ovary syndrome(PCOS) is a most common clinical-hormonal women-affecting disorder, often leading to chronic health issues beyond reproductive challenges. Women with PCOS experience irregular menstrual cycles along with elevated androgen levels; however, also associated with a high risk of chronic clinical-conditions such as Type 1 and Type 2 diabetes, and cardiovascular disease(CVD) due to underlying metabolic disturbances. This study investigates the health risks and complications associated with PCOS, including diabetes, cardiovascular disease, and fertility problems, aiming to develop improved management strategies.

Long-term implications of polycystic ovary syndrome (PCOS): An in-depth study on associated health risks and complications by Alka Rai et al from Dept. of Obstetrics & Gynaecology, Chandan Hospital, Lucknow, Uttar Pradesh & Hind Institute of Medical College, Barabanki, Uttar Pradesh, India.

Premature rupture of membranes (PROM) is defined as the spontaneous rupture of membranes before the onset of labour. It is associated with various adverse outcomes including maternal and perinatal morbidity and mortality. Chorio-amnionitis, placental abruption, post-partum hemorrhage, puerperal sepsis, oligohydramnios, cord prolapse, fetal distress, intra-uterine death, perinatal infections are some of the complications associated with it.

Study of feto-maternal outcome in premature rupture of membranes at term pregnancy in a tertiary care institute by Banhishikha Sircar et al from Dept. of Obstetrics and Gynaecology, Regional Institute of Medical Sciences, Imphal, Manipur, India.

Cesarean sections are amongst the most commonly performed abdominal operations in women worldwide. Wound healing is an important factor for lower complication rate and patient satisfaction. Despite conflicting results, closure with subcuticular suture materials was found to be more advantageous considering wound healing, better cosmetic results and patient satisfaction rates.

Monocryl 3-0 subcuticular in abdominal skin closure in cesarean sections by Sukhmanjit Kaur et al from Dept. of Obstetrics and Gynaecology, Sri Guru Ram Das Institute of Medical Sciences and Research, Amritsar, Punjab, India.

A pregnancy may end in a live birth, a spontaneous miscarriage (spontaneous abortion), an induced abortion, or a stillbirth. Approximately one-fourth of women will have first-trimester bleeding, and about half of those women will have a spontaneous abortion and approximately 50% will continue with a normally progressing pregnancy. First-trimester bleeding leads to pregnancy loss in over 50% of cases.

Identification of the causes of first trimester vaginal bleeding and fetomaternal outcomes in cases with threatened abortion by Japji Kaur Sandhu et al from Dept. of Obstetrics and Gynecology, Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, and Punjab, India.

India is the most populous nation in the world. In India, understanding and awareness of contraceptive methods are insufficient, and the culture is rife with myths. IUCD insertion in the immediate postpartum period is an effective, safe and convenient method of contraception for both cesarean and vaginal births.

Assessment of acceptability, safety and efficacy of immediate postpartum Cu-T insertion in a tertiary care centre by Pankhuri Jain et al from Dept. of Obstetrics and Gynecology, Shri Guru Ram Rai Institute of Medical & Health Sciences, Dehradun, Uttarakhand, India.

Platelets, non-nucleated cellular fragments of megakaryocytes, play a pivotal role in hemostasis. Thrombocytopenia, defined as a platelet count less than  $150 \times 10^9/L$ , ranks as the second most common hematologic abnormality encountered during pregnancy, principally characterized by bleeding from small vessels. In non-pregnant women, the normal reference range of platelets is  $150$  to  $400 \times 10^9/L$ . However, during the third trimester, due to hemodilution of plasma volume, platelet count may decrease by approximately 6% to 7%, though it typically remains within the normal reference range. Thrombocytopenia can arise from various conditions, many of which are pregnancy-related. Changes in platelet count are attributed to hemodilution, increased platelet consumption, and heightened platelet aggregation driven by elevated levels of thromboxane A<sub>2</sub>.

Clinical profile and outcome of thrombocytopenia in pregnancy by Sangeeta Shah et al from Dept. of Obstetrics and Gynaecology, Gandhi Medical College, Secunderabad, Telangana, India.

One of the primary reasons why infertility is on the rise is Polycystic Ovarian Disorder or PCOD. It is a chronic disorder in which many benign cysts form on the ovaries. It affects about 3%-7% of women of reproductive age. It most commonly in women under 30 years old and is a commonest cause of anovulation and a leading cause of infertility. Although the precise origin of PCOD is yet unclear, genetics and hormone abnormalities are thought to have a role. In some cases, it can even run-in families. Now a days most of the adolescent girls are found suffering from PCOD due to bad food habits, sedentary lifestyle and also stress and it will affect their quality of life. Hence the researcher selected this topic for the study.

A descriptive study to assess the effectiveness of planned teaching programme on knowledge related to polycystic ovarian disorder among adolescent girls of SGRR nursing college Patel Nagar, Dehradun by Rebecca Priti Bahadur et al from Dept. of Obstetrics and Gynaecological, SGRR University, College of Nursing, Dehradun, Uttarakhand & Graphic Era College of Nursing, Dehradun, Uttarakhand, India.

Vitamin D deficiency during pregnancy is a worldwide epidemic. Studies have reported a prevalence that ranges from 18-84%, depending on country of residence, season and local clothing customs. Furthermore studies have shown that pregnancy alone is a risk factor for vitamin D deficiency particularly among women living at high altitudes. Vitamin D deficiency in pregnancy is associated with increased risk of pre eclampsia, gestational diabetes mellitus, preterm birth, small for gestational age infants, impaired fetal skeletal formation and bone mineral density (BMD).

Evaluation of vitamin D status in antenatal patients attending OPD at a tertiary care centre by Manpreet Kaur et al from Dept. of Obstetrics and Gynaecology, Sri Guru Ram Das Institute of Medical Sciences and Research, Amritsar, Punjab, India.

Given the exponential rise in preterm births around the globe, this study aims to know prevalence of overall preterm births and among different categories as well as to analyse the risk factors responsible for preterm birth in different categories.

Prevalence of extreme preterm, very and moderate to late preterm births and their association with risk factors – in a South Indian cohort by Romana Khurshed et al from Dept. of Obstetrics and Gynecology, Jawahar Lal Nehru Medical College, Belagavi, Karnataka, Dept. of Obstetrics and Gynecology, Ramachandra Medical College, Chennai, Tamil Nadu, Wauke High School, Iowa, USA & Dept. of Medicine, Jawahar Lal Nehru Medical College, Belagavi, Karnataka, India.

In an unflawed world, all women would endure spontaneous onset of labour pains, terminating in a normal vaginal delivery with no intervention. But this picture is anything but idyllic. Up to 20% of women worldwide undergo induction of labour for a variety of causes and by one or the other available methods. In 1997, the World Health Organization defined normal birth as "spontaneous in onset with the infant born in the vertex position at term with low risk to mother and baby throughout labour resulting in a healthy mother and infant." The model method for labour induction would simulate the process of onset of spontaneous labour unerringly. It often becomes essential to induce labour when the benefits of continuing the pregnancy become marginal to either the mother or the fetus.

Comparative analysis of safety, efficacy and fetomaternal outcome of cervical priming with mifepristone versus intracervical dinoprostone gel by Shazia Khan et al from Dept. of Obstetrics and Gynaecology, INHS Asvini, Mumbai, Maharashtra, India.

Commonly cervical length is measured as a predictor of preterm labour. Recently UCA has been suggested as a predictor of preterm labour. Recently UCA has been suggested a predictor of preterm labour. The purpose of this study to find out the role of UCA as a predictor of preterm labour.

Uterocervical angle (UCA) to predict preterm labour: What's the correct angle? By Balusu Venkata Narmada et al. from Dept. of Obstetrics and Gynaecology, Kastrube Medica College, Manipal, Karnataka, India.

First identified during pregnancy, GDM (Gestational diabetes mellitus) is referred by reduced glucose tolerance that results in varied degrees of hyperglycemia. Usually, the diagnosis is made between twenty four to twenty eight weeks period of gestation. Compared to European women, South Asian, and especially Indian women have an 11 times elevated chance of developing GDM. GDM women are more prone to operative vaginal deliveries, cesarean sections, and complications such as shoulder dystocia during vaginal delivery due to the fetus having macrosomia or large for gestation. Screening and diagnostic methods for GDM depend largely on historical data, clinical examination, and laboratory tests like DIPSI and IADPSG. Early detection and prevention methods for GDM are limited. The purpose of this study was to evaluate the predictive value of serum uric acid levels in the first trimester for GDM in low-risk pregnant women.

First trimester serum uric acid as an early predictor of gestational diabetes Mellitus by Hema Sharanagouda Patil et al from Jawaharlal Nehru Medical College, Belagavi, Karnataka, India.

Labour induction is process in which pregnancy is terminated artificially and labour time is cut shorten, any time after fetal viability is attained by a method that aims to secure vaginal delivery. It is one of the key procedures in modern obstetrics practice. The key factor for a successful induction is the cervical factor, consistency and dilatation of cervix which is determined by the Bishop's score. Prostaglandins drugs are more effective in cases of unfavourable cervix factor or in the pregnancies which are away from the term. Misoprostol, a prostaglandin E1 analogue is relatively less expensive, can be easily stored at room temperature and has fewer systemic adverse effects. Misoprostol has rapid absorption both oral and vaginal route. Various studies have done to compare the efficacy of use of misoprostol orally versus vaginally. In this study we have highlighted the efficacy of this drug via both the route Efficacy and Safety of Labour Induction by Oral versus Vaginal Misoprostol–Study of 200 cases in private setup by Manish R Pandya et al from, Mahavir Hospital& Manish IVF center Surendranagar, Gujarat.

#### **Case Series .....**

1. Rare benign vulvar tumours: Case series by T Kiruthika et al from Dept. of Obstetrics and Gynecology, Kempegowda Institute of Medical Sciences, Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka, India.
2. A case series on navigating ovarian cysts during pregnancy assess the outcomes by Ooha Dharani Yalamaddi et al from Dept. of Obstetrics and Gynaecology, Saveetha Medical College and Hospital, Chennai, Tamil Nadu, India.

#### **We have case report**

Sclerosing stromal tumors (SSTs) are rare ovarian neoplasms predominantly affecting young females during their second or third decade of life. This case report presents a comprehensive analysis of a young female patient diagnosed with an ovarian SST, highlighting its clinical presentation, histopathological characteristics, and management.

Sclerosing stromal tumour in a young female: Clinical presentation and management by Tiruvaipati Siri Madhuri et al from Dept. of Obstetrics and Gynaecology, Saveetha Medical College and Hospital, Chennai, Tamil Nadu, India.

Germ cell tumours (GCT) account for 15-20% of all ovarian tumours in children and the young female population. Mature cystic teratoma, commonly known as dermoid cyst, is the most common type of GCT. In this report, we are presenting a rare case of a totally detached mature cystic teratoma located in the pouch of Douglas, which posed a diagnostic challenge and was a wonder intraoperatively.

Wonder of the wandering dermoid cyst by Reshma Ann Mathew et al from Dept. of Obstetrics and Gynaecology, Father Muller Medical College, Mangalore, Karnataka, India.

Endometrial stromal sarcoma (ESS) is an uncommon and confusing malignant tumour amongst all uterine sarcomas occurring in the peri-menopausal age group. We report a case of low-grade ESS in a 47-year-old woman, presented with lower abdominal pain related with lower abdominal mass. Earlier USG report exposed multiple intramural fibroids. Since preoperative decision could not be determined, total abdominal hysterectomy with bilateral salpingoophorectomy was done. Histopathology examination of uterus revealed low grade endometrial stromal sarcoma. Post operatively PET CT was done which came out to be negative for metastasis. Patient is in regular follow up since then.

Low grade endometrial stromal sarcoma: A case report by Nishitha Gandavaram et al from Dept. of Obstetrics and Gynaecology, Saveetha Medical College and Hospitals, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India.

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Individually we achieve, together we excel...

Regards

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