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GUEST EDITORIAL

| Dr. Usha Saraiya | **The Origin of Healthcare for Women in India: A Story of the World of Yesterday**

Editorial Note by EIC, Prof. Suvarna Khadilkar

JOGI has been working hard to bring high quality science and research to our readers who are primarily involved in women's health care, which is one of the top agendas of our country and also our vibrant organization, FOGSI. Women's healthcare movement had begun way back in 1885. It took 65 years for likeminded professional to come together to establish FOGSI for the sole cause of women's health and education. How far have we been successful in this mission? Will this unfinished agenda ever finish? What struggles women and doctors went through in yester years? I cannot think of a better person than the legendary Dr. Usha Saraiya who will have answers to all these queries coming to curious minds. She was honoured with Lady Reay medal as well as President of India medal as the best female medical student in 1959. She has witnessed the evolution of healthcare for women in her life time.

Dr. Usha Saraiya started her journey from Cama Hospital as a resident doctor and later continued as honorary consultant for about 35 years. As her students we had witnessed her passion and deep interest in historical aspects of Women's health. She always paid tribute to her mentors Dr. Jerusha Jhirad, Dr. Aptekar and Dr. Winifred Fernandes, big names in field of obstetrics and gynecology of India in those days. They inspired her to work on the life sketches of pioneering women doctors. Eventually she published a book in 2006. It is often quoted and has become a reference book. Dr. Saraiya brought papsmear services to India in 1970 and helped introduce it in clinical practice. She has done pioneering work in the field of pap smear and colposcopy and her center in Cama hospital is now internationally accredited and has been training doctors from India and SAFOG countries for the last 45 years.

Dr. Saraiya has always been interested in research work and she has completed many projects with ICMR Grants. I was fortunate to work with her in one project "Tuberculosis in Pregnancy" [1]. I also feel proud to be associated with historic institutes like Grant medical |

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	college, Sir J J hospital and Cama hospital, Mumbai, Chhatrapati Pramilatai Raje Hospital (CPR) Kolhapur and Association of Medical Women of India. I also feel extremely proud to be associated with this journal (JOGI) and FOGSI from where the women health care movement began. In this editorial Dr. Saraiya shares her experience, and pearls from her treasury of history with our readers. It truly reflects her passion about history and its significance in present times. Enjoy the experience of looking back… looking forwards!

REVIEW ARTICLE

Rudy De Wilde	**Guidance and Standards for Breast Cancer Care in Europe** **Abstract:** The increasing incidence and mortality rates of breast cancer have led to the necessity of initiating and developing clinical practice guidelines in order to optimize cancer control and provide patients with the best care. These guidelines are either national or issued by reputed relevant European societies—like European Society for Medical Oncology. Many of the recommendations are concordant in-between the guidelines. However, there are still considerable discrepancies to be noted between guidelines from different European countries, which could hinder physicians from implementing their recommendations. The present paper summarizes and compares the recommendations included in the various European guidelines.

MINI REVIEW

Laxmi Shrikhande	**AMH and Its Clinical Implications** **Abstract:** Anti-Müllerian Hormone (AMH) is critical for physiologic involution of the Mullerian ducts during sexual differentiation in the male fetus. In women, AMH is a product of the small antral follicles in the ovaries and serves to function as an autocrine and paracrine regulator of follicular maturation. As the size

	of the residual follicular pool depends on the quantity of small antral follicles and declines over time, the serum AMH level in women follows a characteristic trajectory: a gradual decline throughout the reproductive years and a precipitous drop at menopause, becoming undetectable soon after. Thus, AMH is clinically useful as a screening tool for diminished ovarian reserve (Cui et al. in Fertil Steril 105(02):481–485, 2016). Perturbations in serum AMH are linked with a variety of pathological conditions, for instance, polycystic ovaries syndrome (PCOS), the pathophysiology likely being the excess follicles in this syndrome which produce increased amounts of AMH (Dumont et al. in Reprod Biol Endocrinol 13:137, 2015). AMH is also elevated in some ovarian tumors such as adult granulosa cell tumors, and it can be used as a tumor marker to gauge response to therapy and monitor for recurrence. Within the domain of assisted reproductive technology, serum AMH assays are widely used to derive prognostic information such as the chance of successful ovarian stimulation, subsequent embryo quality and even pregnancy rates. Finally, in the rapidly evolving field of oncofertility, serum AMH holds great promise as a predictor of ovarian reserve after completion of cancer therapy. Our aim is to put forth an in-depth review of the clinical applications of AMH in contemporary practice.

ORIGINAL ARTICLES

OBSTETRICS

Penzy Goyal Rachna Agarwal Himsweta Srivastava Rajarshi Kar Meera Sikka Medha Mohta	**Serial Serum Lactic Acid in Pregnancy-Associated Sepsis for Maternal Outcome** **Abstract:** **Objective** To correlate serial monitoring of lactic acid in pregnancy-associated sepsis (PAS) subjects with maternal prognosis. **Methods** All pregnant, post-abortal (2 weeks) and postpartum women with suspected sepsis fulfilling any 2 of the Quick Sequential Organ Failure Assessment criteria were considered as cases. Lactic acid was measured at

0, 24 and 48 h of admission, and lactate clearance was calculated.

Results

The mean value of lactic acid was significantly higher in the Intensive Care Unit (ICU) group than the Non-ICU group at 0, 24, and 48 h with values being (6.00 ± 2.46 mmol/l vs 3.25 ± 1.92 mmol/l), (4.44 ± 2.24 mmol/l vs 2.91 ± 1.77 mmol/l) and (5.65 ± 2.91 mmol/l vs 2.99 ± 1.93 mmol/l), respectively. Lactic acid in the survivor group was significantly lower as compared to the mortality group (3.79 ± 0.32 mmol/l vs 7.3 ± 0.56 mmol/l). A cut-off of 3.8 mmol/l with area under the curve of 0.814 has a sensitivity of 84% and specificity of 68% for predicting ICU admission. The mean lactate clearance was 46% in cases who survived and 22.5% in cases who had mortality. When lactate clearance was 60%, no mortality was seen, whereas when there was 100% rise in lactic acid, they all had mortality.

Conclusion

The mean lactic acid at 0, 24 and 48 hours was significantly higher in the ICU group as compared to the Non-ICU group. Serum lactic acid at zero hours of the presentation was significantly higher in ICU cases. Lactate clearance (fall) helps to prognosticate as fall of ≥ 60% lactic acid level is associated with 100% survival, whereas a rise of 100% in serum lactic acid is associated with 100% mortality.

Saloni Arora
Smriti Prasad
Akshatha Sharma
Anita Kaul

First-Trimester Crown-Rump Length (CRL) and Nuchal Translucency (NT) Discordance in Monochorionic Twins: An Ominous Sign or a Benign Feature?

Abstract:

Background

This study aimed to evaluate the usefulness of the first-trimester crown-rump length (CRL) and nuchal translucency (NT) discordance in monochorionic diamniotic twins (MCDA) for the prediction of complications—twin–twin transfusion syndrome (TTTS), selective fetal growth restriction (sFGR) or intrauterine fetal demise (IUFD).

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Methods

Intertwin discordance in the CRL and NT was calculated as a percentage of the larger CRL and NT, respectively. The performance of inter twin discordance (CRL ≥ 10% and NT≥ 20%) for predicting complications was analysed using standard statistical screening test methods.

Results

Fifty-eight MCDA twin pregnancies were studied. Out of them, 19 (32%) pregnancies resulted in one of the complications studied (4 TTTS, 10 sFGR, 5 IUFD). CRL and NT discordance showed an increased probability of developing complications positive likelihood ratio (LR+) {95% confidence interval}: 2.05 {0.46–9.23} and 1.88 {1.03–3.45}, respectively. NT discordance showed a sensitivity of 57%.

Conclusions

Although discordant first-trimester CRL and NT in monochorionic twins are poor screening tools for early prediction, if positive, they increase the risk of developing complications.

Monika Chaudhary
Nandita Maitra
Tosha Sheth
Palak Vaishnav

Shock Index in the Prediction of Adverse Maternal Outcome

Abstract:

Introduction

WHO states that obstetric hemorrhage, hypertensive disorders of pregnancy and sepsis account for approximately 50% of maternal deaths worldwide. All these conditions are associated with changes in vital signs including blood pressure (BP) and heart rate (HR). Shock index (SI) is the ratio of HR to systolic BP.

Aims and Objectives

To evaluate role of shock index as an early indicator of adverse maternal outcomes and to determine the threshold points of SI for five adverse maternal outcomes.

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Methodology

This was a prospective observational study on 1004 consecutively enrolled subjects presenting in labor. Vital signs and Shock Index were recorded. SI thresholds were analyzed with respect to obstetric complications and adverse outcomes. Parametric tests such as Chi-square, comparison of proportions, comparison of mean and ROC curve analysis were applied on the data.

Results

The mean SI value in the vaginal delivery group was 1.02 ± 0.26 and it was 0.95 ± 0.033 in the caesarean delivery group. The values of SI ((Mean and SD) for ICU admission were (1.23 (± 0.35)), for (MODS) it was (1.47 (± 0.84)), for blood transfusion > 4 units it was (1.15 (± 0.41)), for surgical intervention it was (1.58 (± 0.51)) and for maternal death (1.39 (± 0.85)). SI ≥ 1.4, had sensitivity 26.82% (21.09–33.19); specificity 100%(99.53–100), PPV was 100% and NPV was 82.96%(81.8–84.06)with an AUC of 0.8 (0.78–0.83) on ROC analysis. In subjects with PIH/eclampsia, SI was lower and in patients with severe anemia, SI was higher

Conclusion

SI performed well as a screening tool in the prediction of adverse maternal outcomes. SI ≥ 0.9 was significantly associated with maternal adverse outcomes: ICU admission, MODS, surgical intervention, blood transfusion and death. The study proposes an SI cut-off of 0.9 for referral and a cut-off of 1.1 for intervention in a tertiary care hospital. Patients with PIH/eclampsia tend to have lower mean SI values as compared to the rest of the study population, suggesting that SI may not be a reliable indicator in patients with PIH/eclampsia

Amandeep Mann
Haritha Sagili
Murali Subbaiah

Pregnancy Outcome in Women with Polycystic Ovary Syndrome

Abstract :

Background/Purpose

Pregnant women with polycystic ovary syndrome seem to be prone for adverse maternal and perinatal outcomes, but there is no conclusive evidence. Indian

data evaluating the pregnancy outcome in women with polycystic ovary syndrome are sparse. This study was proposed to evaluate the pregnancy outcome in women with polycystic ovary syndrome.

Methods

This descriptive study on 135 pregnant women with polycystic ovary syndrome was carried out in a tertiary care hospital in South India from January 2016 to October 2017. Data regarding present pregnancy, polycystic ovary syndrome and maternal/ perinatal outcomes were analysed using SPSS version 20. Categorical variables studied were parity, various maternal and perinatal outcomes.

Results

The mean age was 26.8 years, 77% had high BMI, and 88% had history of primary infertility. The proportion of hypertensive disorders of pregnancy was (17.8%), PROM (18.5%), low APGAR score at 5 min (13%), gestational diabetes (13%), miscarriage (2.2%), preterm delivery (10.4%), caesarean delivery (30.4%), low birth weight babies (2%), macrosomia (0.7%), PPROM (8%), perinatal mortality (2%) and NICU admission (20%).

Conclusion

The proportion of hypertensive disorders of pregnancy, PROM, low birth weight babies, low APGAR score at 5 min was found to be higher, but the proportion of GDM, miscarriage, preterm delivery, meconium stained liquor, caesarean delivery, small for gestational age/IUGR, macrosomia, PPROM, perinatal mortality, NICU admission and congenital anomalies was found to be either similar or lower in pregnant women with PCOS in our study to those described in the general pregnant population.

GYNECOLOGY

Karthik Subramaniam
Hemanth K. Prasad
Prem Pal

Is Idiopathic Hirsutism Truly Idiopathic?

Abstract :

Objective

To determine whether *other* androgens [androstenedione (A4), 17-hydroxy progesterone (17OHP) and dehydroepiandrosterone (DHEA)] were elevated in women with classically defined idiopathic hirsutism (IH)/patient-important hirsutism (PIH).

Study Design

Retrospective analysis.

Setting

Outpatient endocrine department of a tertiary care hospital.

Patients

In total, 30 consecutive women with IH/PIH were included. IH/PIH was defined as presentation with hirsutism with normal menstrual cycles (25–35 days), normal total (< 45 ng/dL) and free T (fT) (< 0.6 ng/dL) and normal ovaries sonologically (transabdominal ultrasonogram ovarian volume < 10 cm^3) without any other signs of virilization. Clinical and biochemical details were collected and analyzed. Androgens were measured by LC–MS/MS. A4 ≥ 2.5 ng/mL, DHEA ≥ 15 (age < 18) or ≥ 11.8 (age ≥ 18) ng/mL, DHEAS ≥ 2847 ng/mL or 17OHP ≥ 2 ng/mL were considered high.

Results

With the mean age of 22 years and mean BMI of 25 kg/m^2, 12/30 (40%) had IH and remaining PIH. DHEA alone was elevated in 60% and A4 alone in 33%. Overall, 23/30 (73%) had any one elevated androgen with normal total and free testosterone. There was no correlation with modified Ferriman–Gallwey score, and there was no significant difference in androgens between IH and PIH.

Conclusion

A high proportion of women with classically defined IH/PIH have elevated DHEA and/or A4. Though on pharmacotherapy basis, there would be no change in management, the role of hyperandrogenemia detected

by sensitive assays on metabolic functions and cardiovascular risk has to be studied.

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Mounika Bopanna
Pallavi Parab
Seema Gulia
Sandhya Chhasatia
Sarita Kothari
Sajana Gogineni
Tarini Taneja
Prema Perumal
Dinesh Jethwa
Yogesh Kembhavi
Sudeep Gupta

A Multicentre Observational Study on Risk Factors for Breast Cancer

Abstract:

Background

Breast cancer is the most common malignancy in Indian women. There is scant data from Indian hospital-based populations on the prevalence of risk factors of this disease. We performed this study to quantify and analyze various epidemiological risk factors in Indian breast cancer patients.

Methods

This was a multicenter collaborative study wherein breast cancer patients older than 18 years were served a structured questionnaire after informed consent. Patients or their relatives were required to fill out the questionnaire and those who were unable to read and write were excluded. Data were abstracted from case record forms and variables were descriptively analyzed.

Results

Between January 2015 and February 2016, 800 patients were screened, of whom 736 patients with a mean age of 50.13 years were enrolled in the study. The mean number of pregnancies was 2.75 (0–11), the number (percentage) of women who had breastfed for more than 6 months was 628 (85.3) and 406 (55.1%) patients were post-menopausal at the time of breast cancer diagnosis. Of the enrolled patients, 91 (12.8%) had history of exposure to passive smoke, 13 (1.8%) had partners who were heavy smokers, 27 (3.7%) had history of oral contraceptive use, 4 (0.5%) had history of hormone replacement therapy, and 103 (14%) had undergone hysterectomy with oophorectomy.

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	Conclusion Our study contributes to the descriptive prevalence of some known risk factors in Indian breast cancer patients.
Shailesh Puntambekar **Theertha S. Shetty** **Arjun Goel** **Shruti Chandak** **Shakti Panchal**	**Single-Centre Experience of Doing Safe Total Laparoscopic Hysterectomy: Retrospective Analysis of 1200 Cases** **Abstract:** **Study Objective** Assessment of safety and feasibility of total laparoscopic hysterectomy in a high-volume tertiary care centre. **Design** Retrospective study design. **Setting** Tertiary care centre: Galaxy care Hospital, Pune, India. **Materials and Methods** This is a retrospective observational study conducted in a tertiary care resident training hospital in Pune which is a high-volume teaching hospital. 1200 total laparoscopic hysterectomy patients between July 2013 and June 2019 operated by a group of trained surgeons were analysed, and parameters, namely demography, indication of surgery, surgical time, intra-operative blood loss, post-operative complications, duration of hospital stay, discharge and follow-up, were studied. **Result(s)** A total of 1200 women who underwent total laparoscopic hysterectomy for various indications were included in the study. TLH was successfully performed in all women. Mean age of women was 45 years. 72.00% had a BMI between 18.5 and 24.9, 16.08% had a BMI between 25 and 29.9, 3.92% had a BMI of > 29.9 while 8% had a BMI < 18.5. Indications for surgery included uterine fibroid (33.08%), adenomyosis (22.25%), endometrial hyperplasia (14.33%), endometrial polyp (7%), endometriosis (3.33%), postmenopausal bleeding (9.25%), chronic PID (5.25%), prolapse (4.25%) and risk reduction surgery in 1.25%. 2.00% had intra-operative

	complications while 7.58% had post-operative complications which were identified and managed successfully. **Conclusion(s)** Advances and innovation in equipment, energy sources and surgical training have made TLH a well-tolerated and efficient surgery. Irrespective of the previous morbidity, pathology and uterine size, TLH is a duplicable and safe in a well-trained high-volume centre.
Milind Telang **Theertha S. Shetty** **Seema S. Puntambekar** **Pravada M. Telang** **Shakti Panchal** **Yogita Alnure**	**Three Thousand Cases of Office Hysteroscopy: See and Treat an Indian Experience** **Abstract :** **Study Objective** Assessment of feasibility of office hysteroscopy in Indian setting. **Design** Retrospective study design. **Setting** Tertiary care centre: Galaxy care Hospital, Pune, India. **Patients** Three thousand consecutive women undergoing office hysteroscopy between 2012 and May 2018. **Interventions** Office hysteroscopy 2200 cases (2012–2017) with Bettocchi 2.9 scope and Hamou endomat. Eight hundred cases (2017–2018) with Bettocchi 1.9 scope and EASI. Normal saline was used as distension medium. With Hamou endomat, settings have drip rate of 200 ml/min with irrigation pressure of 75 mmHg and suction bar 0.15. With EASI, settings were for Bettocchi 4 (1.9 mm) and Bettocchi 5 (2.9 mm) scope with 45 mmHg. Hysteroscopies were carried out by an experienced operator trained in office hysteroscopy. All hysteroscopies were done in early proliferative phase (4th–11th day). **Main Outcome Measures** Success, failure and complication rates. **Results**

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Hysteroscopies were successfully performed in nearly 98.66% of cases with 4 patients requiring a two-step procedure due to > 3 cm pathology. One thousand eight hundred eight (62.2%) were diagnostic hysteroscopies, while operative hysteroscopies were performed in one thousand one hundred twenty (37.8%). One patient (1/3000) had a vasovagal attack.

Conclusions

In outpatient setting, counselling the patient for office hysteroscopy played an important role to overcome pain and anxiety, in addition to low pressure, continuous flow irrigation and vaginoscopic approach. Traditional resectoscopic surgeries should be reserved for challenging cases (i.e. endometrial ablation) or for certain pathologies (myomas > 2.0 cm, broad-base, large-size polyps). Recent advances in technique and instrumentation facilitate this approach and might encourage greater adoption by the gynaecology community. With the right approach, technique and setup, office hysteroscopy is feasible with favourable outcomes.

CASE REPORTS

OBSTETRICS

Luis A. Sánchez-Ato
Flavia A. Cuestas-Quiroz
Carla Agurto-Saldaña
David Estela-Ayamamani

Pregnancy-Induced Hemophagocytic Lymphohistiocytosis: A Case Report

Abstract :

The Hemophagocytic Lymphohistiocytosis (HLH) is a very rare and challenging disease. (1) The presentation, diagnosis, treatment, and recovery of this condition are highly variable among different population groups. (2,3) It is categorized in Primary HLH, which affects more children and has a strong genetic component, and Secondary HLH is usually associated with infections, autoimmunity, and malignancies. (4,5) The clinical presentation involves multiple organs, being the most common symptoms hepatosplenomegaly, fever, cytopenias, liver dysfunction, increased ferritin, and neurological affection. (6–8) The information on this disease is even more scarce for pregnant women due to the few cases reported. We report the case of a 23-year-old woman with pregnancy-induced Hemophagocytic

	Lymphohistiocytosis that had a mild recuperation after the delivery of the baby but unfortunately died.

GYNECOLOGY

Vaishali B. Nagose **Reny Sadanandan Rosemary** **Rakesh C. Anandrajan** **Nita Hubert** **Reethu Raj**	**Torsion of Non-gravid Uterus: A Life-Threatening Condition in a Postmenopausal Lady** **Abstract :** Uterine torsion, when seen in a non-gravid uterus, is quite extremely rare condition (less than 50 cases reported). Further, only few such cases in postmenopausal age group have been reported as the present one. This 57-year-old lady presented as acute abdomen. CT scan confirmed a large fibroid with calcifications arising from the uterine body and stretched round ligament lying beneath the peritoneum and twisted dense uterine vessels in the pedicle. Gross and histological examination showed gangrenous change (haemorrhagic infarct) in uterus, adjacent part of leiomyoma and right ovary. Torsion of the vessels at the pedicle caused irreversible ischaemic damage of the uterus, led to rapid clinical deterioration. Thus, it is urged that surgical removal of the huge subserosal fibroids or ovarian cysts should be done in the perimenopausal or postmenopausal women in view of the possibility of the torsion of uterus with or without adnexa.

Instrumentation and Techniques

Kusum Lata **Amenda Ann Davis** **Akshita Panwar** **Isha Kriplani** **Seema Sharma** **Alka Kriplani**	**Laparoscopic Excision of Cesarean Scar Ectopic Pregnancy** **Abstract :** **Background** Cesarean scar ectopic pregnancies are increasing in frequency, due to rise in cesarean deliveries. They should be managed early in pregnancy, preferably by surgical excision, failing which they may rupture, or later develop into morbidly adherent placenta.

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	Methods This is a series of five cases described to explain the instrumentations and techniques in the laparoscopic excision of cesarean scar ectopic pregnancies. Written consent was taken from the patients. **Results** All five patients underwent successful laparoscopic excision. Follow-up period was uneventful. **Conclusion** Laparoscopic excision of cesarean scar ectopic is a technically demanding procedure, but with excellent results. All gynecologists should be familiar with this technique due to the increasing incidence of cesarean scar ectopic gestations.

PICTORIAL ESSAY

Arun Harishchandra Nayak **Archana Anil Bhosale** **Madhuri Alap Mehendale** **Shraddha Ashok Mevada** **Bharti Mandal** **Hemantkumar Pandharinath Chaudhari**	**Successful Management of Rare Case of Placenta Percreta upto Anterior Abdominal Wall**

BOOK REVIEW

Ashwini Bhalerao Gandhi	**1000 Multiple Choice Questions on Menopause**

SHORT COMMENTRY

Alokananda Ray **Sarita Kumari**	**Congenital Hydrocolpos: Diagnostic Journey and Management—A Case Report**

LETTER TO THE EDITOR

Steven Lindheim	**Reproductive Endocrinology Infertility (REI) Specialists' Utilization and Attitudes Toward Expanded Carrier Screening (ECS) for Third-Party Oocyte Donors**

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