Fertivision 2022- Poster Abstracts

USE OF PROGESTERONE (PPOS) VERSUS GNRH ANTAGONIST FOR PITUITARY SUPPRESION IN PATIENTS OF FREEZE ALL IVF/ICSI CYCLES: A PROSPECTIVE RANDOMISED CONTROLLED TRIAL

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Study question: What is the effectiveness of progesterone versus GnRH antagonist for pituitary suppression in controlled ovarian stimulation for patients of freeze all IVF/ICSI cycles.

What is currently about the subject: Upon reaching a critical level of estradiol at the end of the follicular phase of the menstrual cycle, the negative feedback on LH that normally occurs by estrogen is shut off, and positive feedback on LH release begins. LH surge triggers ovulation in response to rapidly rising estradiol concentrations before oocyte collection. Pituitary suppression with GnRH analogues has been employed to prevent premature ovulation. Failing to control the LH surge before retrieval will lead to spontaneous ovulation, decreased oocyte yield, or premature progesterone elevation, causing endometrial-embryo asynchrony. Premature LH surge (21–25%) is a major cause of cycle cancellation during COS in women undergoing IVF without intervention. The premature LH surge should primarily be prevented for greater COS efficacy. Progesterone reduces GnRH's pulsatility from the hypothalamus, thus inhibiting the LH release associated with increased estradiol levels. Furthermore, the PPOS protocol decreased the incidence of OHSS without adversely affecting clinical outcomes.

Study design, size, duration, material, and methods: Eighty infertility patients of age 23 to 40 years (normal uterine cavity by 2D ultrasound/hysteroscopy) were enrolled for prospective randomized controlled trial from April 1, 2021 to March 28, 2022 at Akanksha IVF center, New Delhi. Two groups of 40 each were formed. Study Group ($n = 40$) patients were given Tab medroxyprogestrerone acetate 10 mg once daily from day 1 while Control Group ($n = 40$) received GnRH Antagonist Inj. Cetrorelix 0.25 mg s/c on Day 6 of the fixed protocol when >2 follicles are of 18 mm. Inj. Leupride 2 mg as trigger oocyte retrievals at 35 to 36 hours Day 3 frozen ET (3x 8cellA) LPS – vaginal supplementation of 800 mg micronized progesterone. Serum beta hCG was performed after 14 days of embryo transfer. Primary outcome is number of oocytes retrieved. Secondary outcomes are duration and dosage of Gonadotropins, number of MII oocytes, number of fertilized oocytes, number of cleaved and cryopreserved embryos, incidence of OHSS, implantation rate, clinical pregnancy rate, miscarriage rate, and biochemical pregnancy rate.

Results: The number of oocytes retrieved was slightly more in PPOS group (12.4 Â ± 2.6) than in antagonist group (11.8 Â ± 2.2), difference was not statistically significant. Consequently the no. of mature oocytes and no. of fertilized, cleaved, and cryopreserved embryos were also statistically similar. The total dose of gonadotropins used and duration of stimulation were comparable in the two groups. No early ovulation was observed in either group, although one patient in the antagonist group had symptoms of mild OHSS. Overall pregnancy outcomes were statistically comparable, implantation rate (29.67% in the PPOS group vs. 26.08% in the antagonist group), clinical pregnancy rate (38.6% in the PPOS group vs. 40.2% in the antagonist group), biochemical pregnancy rate (54% in the PPOS group vs. 50% in the antagonist group), and miscarriage rate (10.8% in the PPOS group vs. 11.4% in the antagonist group).

Limitations of study: Our study could not ascertain the live birth rate due to the short duration. Long-term effects of progesterone on the cycle could not be studied.

Study funding/competing interest(s): Yes.

Is it a Clinical Trial: No.

Ethical clearance done or not: No.

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A CASE OF UTERINE FIBROID, TERATOMA, AND INFERTILITY

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Introduction: Uterine fibroids (leiomyoma's) are benign tumors of the uterus. Fibroids affect approximately 35% to 77% of reproductive age women. They are present in 5% to 10% of infertile patients, and may be the sole cause of infertility in 1% to 2.4%. Removing the fibroids increased the pregnancy rate from 25% to 42%. In this case the patient was presented with vague pain in lower abdomen and increased frequency of micturition and history of infertility.

Case report: A 30-year-old female presented to OPD with complaints of vague pain in the lower abdomen, increased frequency of micturition since 6 months and history of infertility since 3 years. On abdominal examination, a mass of 18 to 20 weeks palpable in midline which is irregular, firm, non-tender, and mobile from side to side is observed. P/S: cervix and vagina healthy. On bimanual examination, large mass occupying the anterior and lateral fornices of size approximately 15 × 10 cm was palpable. Uterus could not be felt separately from the mass. Diagnosis was confirmed by USG and MRI which showed subserosal l fibroid of 15 × 8 × 9 cm arising from fundus of the uterus and a 3 × 3 cm dermoid cyst in the left ovary.

Management: Under all aseptic conditions, laparotomy was performed, and intraoperatively, a normal sized uterus with a large subserosal fibroid of 15 × 8 × 9 cm was found along with a cyst in the left ovary. The right ovary was normal, and both fallopian tubes were normal. Myomectomy along with a left ovarian cystectomy was done.

Conclusion: This is a c/o large sub-serosal fibroid and mature dermoid teratoma in a nulliparous woman, who presented with vague lower abdominal pain, increased frequency of micturition, and h/o infertility, for which myomectomy along with left ovarian cystectomy was done. HPE report awaited.

Keywords: Leiomyomas, dermoid cyst, myomectomy

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TRANSVAGINAL ASPIRATION AS A TREATMENT OPTION FOR HETEROTOPIC PREGNANCY WITH CERVICAL GESTATIONAL SAC – A CASE REPORT

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Background: The incidence of heterotopic cervical pregnancy in post-assisted reproductive technology is approximately 1% to 3%. The presence of a viable intrauterine pregnancy necessitates for a conservative approach that is effective as well as safe for the patient. Early diagnosis of the condition is the key to effective management.

Case report: A 36-year-old G2A1 conceived after the transfer of frozen embryo presented with painless bleeding per vaginum at 5 weeks and 5 days. O/E: hemodynamically stable with no palpable mass or tenderness per abdomen. Per speculum: minimal bleeding is present. Transvaginal ultrasound was suggestive of two gestational sacs with the fetal pole above and below the closed internal os, suggesting **heterotopic cervical pregnancy with viable intrauterine pregnancy**.

Treatment: She was managed conservatively by **USG-guided transvaginal aspiration** of the cervical gestational sac using a **17G Cook's single-lumen oocyte retrieval needle**. Post-procedure, the patient was monitored. The vital signs were stable, and the vaginal bleeding was within normal limits. Post-procedure USG is suggestive of a **viable intrauterine pregnancy** with organized hematoma in the cervical canal.

Discussion: The presence of a viable intrauterine pregnancy excludes the use of systemic methotrexate for the management of cervical heterotopic pregnancies. The utilization of transvaginal aspiration prevents the risk of torrential hemorrhage associated with other invasive techniques such as suction evacuation.

Conclusion: USG guided transvaginal aspiration may be considered as a treatment option in cervical ectopic/heterotopic pregnancy.

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A CASE OF PREGNANCY WITH LARGE SUBSEROSAL FIBROID

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Introduction: Uterine fibroids (leiomyoma) are benign smooth muscle tumors. It affects approximately 35% to 77% of reproductive age women. It is found in 1 in 1000 pregnancies. Their presence has been linked to spontaneous abortion, intrauterine growth restriction (IUGR), anemia, multiple blood transfusions, infection, pain, degeneration, malposition of the foetus, premature labor, uterine inertia, placental abruption, postpartum hemorrhage, retention of the placenta, and increased rates of cesarean section, hysterectomy, and obstetric hysterectomy. In this case, patient presented with a married life of 3 months with spontaneous conception, 9 weeks of gestation, with large subserosal fibroid.

Case report: A 25-year-old patient, primi, married life of 3 months, spontaneous conception came with USG and MRI suggestive of large subserosal multilobulated fibroid size 10 × 19 × 23 cm. On abdominal examination, a mass of 20 to 22 weeks is palpable in the midline and is irregular, firm non tender mobile from side to side. In her town place primarily she was advised termination. But she wanted to continue the pregnancy.

Management: After proper counseling of the patient and her relatives, explaining all the risks, the patient's regular antenatal checkups were done and planned for an elective caesarean section at 28 weeks due to persistent breathlessness and pain in her abdomen (red degeneration of the fibroid). After delivery of the baby, the myomectomy was done.

Conclusion: This is a rare case where the patient was unaware of a fibroid before conception and her pregnancy was continued with a caesarean myomectomy done.

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HIGHER ORDER PREGNANCIES – A BOON OR BANE

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Background: The goal of infertility treatment is to have one healthy child for each patient at a time. The challenges associated with achieving that goal differ by treatment and clinical context. In ovulation induction (OI), ovulation of more than the targeted single oocyte occasionally results. In ovarian stimulation (OS), implantation of more than one embryo may follow the fertilization of oocytes from supernumerary follicles. Regardless of which treatment is performed, the objective is the same: to maximize the probability of pregnancy while minimizing the risk of a multiple gestation.

Case: - Our case, 31 years old, with primary infertility with male factor infertility (azoospermia) and a previous cancelled IVF cycle with poor ovarian response, underwent three attempts of intrauterine insemination (IUI) with donor sperm (AID) at Milann Hospital. She had a missed abortion in the first AID cycle, which was medically managed. In view of failed IUI cycles, she was counseled for IVF with donor sperm. Due to poor ovarian response (only two dominant follicles of 18 mm), decision was made to cancel IVF and convert to an IUI cycle. She had quadruplet conception from the same, which was reduced to twin gestation. She developed preterm labor at 29 weeks of gestation due to the infection caused by reduced twin. She gave birth to a male child weighing 900 grams and a female child weighing 1120 grams, both of whom were cared for in the NICU for 15 days. Now the babies are with mother and feeding well.

Conclusion: -Multiple follicular development is the dominant risk factor for high-order multiple gestations in OI and OS cycles. They could be more difficult for the mother and the child. Premature birth is more likely when giving birth to twins, triplets, and so forth. This could also mean an increased risk of health issues during pregnancy and following birth. Pregnancy loss is also a tragic factor when dealing with multiple births.

Keywords: Artificial insemination of donor sperm (AID), fetal reduction, higher order pregnancies, in vitro fertilization (IVF)

Study funding/Competing interest(s): No.

Is it a clinical trial: No.

Ethical clearance done: Yes.

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OPTIMIZING LUPUS MANAGEMENT IN PREGNANCY

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Objectives: To evaluate the maternal and fetal outcome in women with SLE To elucidate the importance of early diagnosis, proper antenatal care, and apt management by a multidisciplinary team antenatally, during intrapartum, and postpartum for a good maternal and perinatal outcome in pregnant women with SLE.

Materials and methodology: Cross-sectional study conducted in women who were diagnosed with SLE at a tertiary care center from January 2021 to December 2021. The clinical presentation and treatment outcomes of these pregnancies were recorded.

Conclusion: The patient should be managed by a multidisciplinary team with early and frequent antenatal care strict monitoring aimed at SLE flares, pulmonary edema, and iugr.
- Intrapartum stress dose of steroids has to be given for those who are on steroids during pregnancy.
- During postpartum period SLE flares and neonatal lupus should also be looked for. Thromboprophylaxis should be given for those who are positive for antiphospholipid antibodies.

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XANTHOGRANULOMATOSIS OOPHORITIS

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Xanthogranulomatosis oophoritis is a rare and benign chronic inflammation, causing massive destruction of affected organ parenchyma by infiltration of lipid-laden histiocytes, giant cells, lymphocytes, and neutrophils. The disease is seen commonly affecting the kidneys, urinary bladder, stomach, gall bladder, testes, epididymis,

and bones. Involvement of the female genital tract is rare and mostly seen in the endometrium. Ovarian involvement is very rare and, when present, may be misdiagnosed as an ovarian abscess or an ovarian tumors due to its nonspecific signs and symptoms.

Case: A 27-year-old nulliparous female presented to Gynae OPD with dysmenorrhea and primary infertility for the last 4 years. Her menstrual cycles were regular with normal length and duration but were associated with dysmenorrhea. She was being worked up for infertility in a local hospital, where on ultrasound, bilateral ovarian masses were diagnosed and she was referred to. On examination, a vague mass was felt in the left vaginal fornix with tenderness; the uterus was normal size with restricted mobility. Her USG was suggestive of 6.3 × 3.6 × 2.8 cm mass in left adnexa and 1.5 × 1.4 cm mass in right ovary, CA 125 was 35.6 IU/mL. On provisional diagnosis of infertility with endometriosis, the patient was taken up for laparoscopy. A large mass of 10 × 8 cm was present in the left adnexa embedded in POD and densely adherent to bowel loops. Adhesiolysis was done and it was separated from bowel loops, on rupture it was filled with frank pus. Cystectomy was done and the cyst wall was sent for histopathology which showed xanthogranulomatous oophoritis.

Conclusion: Xanthogranulomatosis oophoritis is a rare chronic infection that may sometimes be difficult to diagnose. The exact etiology still remains uncertain, but a number of associated risk factors have been reported. The disease may mimic benign and malignant ovarian pathologies like abscess and neoplasms on clinical and radiological findings. A high degree of clinical suspicion combined with histopathopathology aided with immunohistochemistry can help in ascertaining the diagnosis.

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YOLK SAC TUMOR: A CASE REPORT

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Introduction: Yolk sac tumor also known as endodermal sinus tumor is malignant germ cell tumor, involving gonads, rapidly developing neoplasms. It presents mostly in first two decades of life, rare, second most common GCT after dysgerminoma. It accounts for only 1% of all ovarian malignancy. Because of early diagnosis, treatment with surgery and multi agent chemotherapy cure rates are very high as much as 81.2 to 90.

Case: A 22-year-old nulliparous married female presented with complains of rapidly increasing abdominal swelling and weight loss for 1 month with pain in abdomen, fever, and vomiting for 10 days duration. On examination, abdomen was distended and a large painful mass of approx. 25 × 15 × 10 cm both solid and cystic with evidence of free fluid was present. On bimanual examination same mass of solid and cystic consistency felt and uterus could not be felt separately. Ultrasound showed a well-defined mass of 25 × 16.8 × 95 cm arising from pelvis reaching up to epigastrium with heterogeneously upper cystic, lower solid areas, with multiple thick septation and ascites. On contrast enhanced tomography [Figure 1], there were no lymph nodes and no distant metastasis. Serum α-fetoprotein (α-FP) >3000, Ca125- 238 whereas other tumor marker was normal. Emergency staging laparotomy was done i/v/o severe pain abdomen with breathing difficulty. Fertility sparing surgery in form of right salpingo-opherectomy was performed. Biopsies from omentum and peritoneum were taken. Surgical staging of tumor was IC. Histopathological findings [Figure 2] showed tumors arranged in papillary, microcystic, and endodermal sinus pattern, lined by cells having varying amounts of clear to eosinophilic cytoplasm with nuclear pleomorphism and vesicular chromatin. Many Schiller Duval bodies and hyaline globules were also noted. Stroma showed myxoid and hemorrhagic areas. Omental and peritoneal biopsies were negative. On immunohistochemistry staining, there was patchy cytoplasmic expression of αFP which is the gold standard in YST; other positive stains were placental alkaline phosphatase and CK 19. Patient received four cycles of bleomycin, etoposide, and paclitaxel (BEP) chemotherapy. Post-chemotherapy αFP levels were 2.6.

Discussion: Malignant ovarian germ cell tumor (MOGCT) is rare and usually unilateral. Since the most common age of presentations is early reproductive age group, fertility preservation is prime concern after disease removal. Most common symptoms are pelvic pain, menstrual abnormalities, and abdominal mass. Pelvic ultrasound, tumor marker like Ca 125, α-FP, S.βHCG, S.LDH should be done preoperatively. CECT is an important in preoperative staging of disease. Surgery should be unilateral oophorectomy, peritoneal washing, omental biopsy, and selective removal of enlarged lymph nodes. Biopsy of a normal contra lateral ovary is not indicated. Operative details, histopathological findings, tumor markers, and imaging studies are important for correct staging and management planning. With the advent of chemotherapy BEP, the prognosis has remarkably increased from 14% to more than 95% in advance cases of MOGCTs. The number of cycles and choice of chemotherapy regimen is based upon the histology and stage of disease. Response to treatment is monitored carefully with both tumor marker and radiological evaluation. National Comprehensive Cancer Network (NCCN) guidelines 2017 recommend fertility-sparing surgery in cases where fertility is required or complete surgical staging where fertility is not required with three to four cycles of BEP chemotherapy. Post-surgery tumor markers should be measured weekly until normal levels are achieved. The chances of relapse are highest in the first 2 years with 75% cases occurring in first year.

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ORAL VERSUS INJECTABLE OVARIAN STIMULATION AGENTS FOR INTRAUTERINE INSEMINATION IN WOMEN ≥35 YEARS OF AGE WITH DECREASED OVARIAN RESERVE

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Background: Given the trend, now over multiple decades, of increasing births in the older reproductive age group and this group's decreased fecundity, there is widespread use of IUI in this population. However, there is a paucity of research evaluating stimulation agents in the older maternal population. Moreover, there is an absence of research comparing the route of administration of these drugs in this population. Thus, the goal of the study is to compare ovarian stimulation agents based on pregnancy outcomes among women of older reproductive age undergoing IUI with decreased ovarian reserve.

Design: Retrospective cohort study from a university health center.

Materials and Methods: A database was created of all women aged 35 to 42 years old who underwent IUI with stimulation at our center till October 2022. The database contains 597 IUIs from 450 women. A comparison of outcomes of oral (clomiphene citrate or letrozole) versus injectable (gonadotropins) agents was performed for those with antral follicle count (AFC) ≤6. ANOVA, chi-square tests, and stepwise multivariate logistic regression were performed. The primary outcome was clinical pregnancy rate per cycle (intrauterine sac with fetal pole and heartbeat), and secondary outcomes were rate of multiple gestation. Data presented are mean ± SD. Power analysis required 125 cycles for an effect size of 0.2, alpha 0.05, and power 0.80.

Results: Three hundred thirty five IUI cycles in 145 patients met inclusion criteria. Stimulation was with clomiphene citrate in 38 (11.3%), letrozole in 33 (9.8%), and gonadotropins in 264 (78.8%) of cycles. The two most common co-etiologies of infertility (excluding age and decreased ovarian reserve as factors) were male factor (34.3%) and tubal factor (8.4%).

Among the three stimulation agent groups, there was no significant difference in mean: age of females ($P = 0.41$) or of males ($P = 0.28$), gravidity ($P = 0.11$), parity ($P = 0.55$), or AFC ($P = 0.98$) (see table). Number of stimulated follicles ($P = 0.21$) and follicles (R14mm) ($P = 0.10$) at trigger also did not differ. The clinical pregnancy rates per cycle were similar ($P = 0.86$), but highest in the letrozole group (see table). A clinical pregnancy was observed in 7.5% of all IUI cycles.

There was one multiple gestation total, obtained with gonadotrophins. Analysis controlling for demographic confounders ($P = 0.20$) (including FSH, estradiol, prolactin, TSH, and total motile sperm count) demonstrated no differences in clinical pregnancy rates ($P = 0.84$).

Conclusions: Letrozole may be the medication of choice for ovarian stimulation in IUI in older women with decreased ovarian reserve, demonstrating the highest pregnancy rate (although not statically so). The overall clinical pregnancy rate of 7.5% remains notable in the studied population. Gonadotropins offered no benefits over oral medications in our study.

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ENDOMETRIUM IMMUNOMODULATION BY INTRAUTERINE INSEMINATION ADMINISTRATION OF TREATED PERIPHERAL BLOOD MONONUCLEAR CELL PRIOR FROZEN/THAWED EMBRYOS IN PATIENTS WITH REPEATED IMPLANTATION FAILURE

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Background: Successful implantation in repeated implantation failures (RIFs) after an in vitro fertilization mainly depends on local immune tolerance mechanisms involving a spectrum of cytokines, interleukins, and growth factors. Literature suggests the presence of seminal fluid in the uterus cavity may recruit peripheral blood mononuclear cells (PBMCs) and trigger the initiation of endometrium decidualization and immune regulation by involving regulatory T cells (Tregs) and Th17 lymphocytes. Hence, we aimed to evaluate the clinical effectiveness of intrauterine administration of treated PBMCs before frozen/thawed embryo transfer in RIF patients participating in an IVF programme.

Material and methods: In total, 25 couples participating in frozen–thawed embryo transfer programme were incorporated into a randomized clinical trial (peripheral blood mononuclear cells [PBMC] subgroup: $n = 10$; control: $n = 15$).

Results: In the PBMC group, a blood sample was collected 5 days before the scheduled frozen–thawed embryo transfer; PBMCs were isolated using Ficoll separation and then cultured for 72 hours. Two days before embryo transfer, 0.4 mL of cultured PBMCs were transferred into the patient's uterus. Although the clinical pregnancy rate was higher in the PBMC group (34.4%) than in the control group (23.4%), this difference was not statistically significant ($P = 0.05$ in a chi-squared test). Nevertheless, when we limited the analysis to patients with ≥3 RIFs ($n = 7$), there was a significant difference in the clinical pregnancy rate between the PBMC group (38.6%) and the control group (19.7%; $P = 0.01$).

Conclusion: Our results imply that PBMC transfer can be part of effective fertility treatment for patients with RIF.

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MULTIPLE MYOMECTOMY IN A CASE OF INFERTILITY: DID THE COVID PANDEMIC WORSEN PROGNOSIS? A CASE REPORT

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Clinical presentation: A 36-year-old woman with a 6-year marriage presented as a case of infertility. History revealed heavy menstrual bleeding associated with pain and a prior evaluation in 2019 where she took some medication for 6 months and stopped treatment. Clinical examination revealed an enlarged uterus of 18 to 20 weeks with irregular enlargement. The USG confirmed multiple fibroids, and hysterosalpingography revealed bilateral tubal blockage. An open myomectomy was planned and intraoperatively, seven fibroids were noted. Myomectomy was started by a vertical incision on the anterior surface of the most prominent myoma, the use of intermittent uterine clamping and vasopressin kept blood loss to a minimum. The endometrial cavity was breached. Two fibroids (about 2 cm each) are left, close to the cornu posteriorly on either side. Tubal patency was checked and found to be present bilaterally. Post-OP and follow-up were uneventful, and patient was discharged on day 5. She was placed on hormonal suppressive therapy for 3 months.

Dilemmas: The age of the patient was 36 – her age at conception? Would she require IVF? The major ovarian reserve major concern: would she have benefitted from surgery pre-covid?

Discussion: The vast majority of surgical procedures performed by obstetrician–gynecologists (ob-gyns) are medically indicated, although of varying urgency. Therefore, postponing non-urgent procedures may be considered if it would not result in significant harm to the patient_ACOG Apr 6 2020. Medical, psychological, and emotional factors are considered in prioritizing which patients to offer care to first when resuming care. These considerations included advanced patient age, diminished ovarian reserve, the presence of known or suspected endometriosis, the mental health and emotional wellbeing of patients, and the impact of delayed care on a patient's ability to access treatment due to insurance coverage or employment status. ASRM guidelines March 17, 2022

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EFFICIENCY OF LASER ASSISTED HATCHING ON FROZEN THAWED BLASTOCYST TRANSFER CYCLE

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Aim: To compare the reproductive outcome on transferred embryos with and without the application of laser assisted hatching.

Design: This is a retrospective study of our couples ($n = 82$) who had underwent frozen thawed embryo transfer cycles (FET) between December 2020 and December 2021 in our private fertility clinic.

Methods: All women had undergone endometrial preparation for frozen embryo transfer cycles using our clinic's standard operating protocols. Only the blastocyst stage transfer cycles were included in this study. Embryo transfers were divided into two groups. Group A includes the addition of laser-assisted hatching (LAH) on embryos ($n = 41$) while Group B consists of non-assisted hatching (NAH) ($n = 41$). From both the groups, live birth and implantation rate were considered the primary outcome measures whereas the secondary outcome measures were biochemical pregnancy and miscarriage rate.

Results: The Laser assisted hatching group showed increased implantation (42.55% vs. 36.84%) and live birth rate (83.33% vs. 58.33%) over non-assisted hatching group, respectively. Also, the miscarriage rate was decreased in LAH versus NAH (12.5% vs. 37.5%).
However, similar pregnancy (58.53%) and biochemical rate (4.16%) were observed in both the study.

Conclusion: This observational study concludes that laser assisted hatching significantly improves reproductive outcomes, particularly implantation and live birth rates in frozen thawed blastocyst transfer cycles.

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A CASE SERIES OF CONGENITAL ANOMALIES

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Introduction: Congenital anomalies can be defined as structural or functional anomalies that occur during intrauterine life, also called birth defects (BD), congenital disorders, or congenital malformations. These conditions develop prenatally and may be identified before or at birth or later in life. An estimated 6% of babies worldwide are born with BD. An estimated 240,000 new born die worldwide within 28 days of birth due to BD every year.

Causes: A minority of BD are caused by genetic abnormalities, that is, chromosomal abnormalities and single gene defects. Consanguinity also increases

the prevalence of rare genetic BD. 94% of severe BD occurs in lower- and middle-income countries due to insufficient nutrition by the pregnant woman. The other factors are increased exposure to agents or factors such as infection and alcohol, or poor access to health care and screening. Advanced maternal age increases the risk for chromosomal abnormalities. Environmental factors including maternal infection, exposure to radiation, certain pollutants, diabetes complicating pregnancy, and certain drugs.

Case series: I have taken four unbooked cases with the congenital anomalies detected on the TIFFA scan. These cases were referred by other clinics for the termination of the pregnancy. The anomalies were anencephaly, gastroschisis, and spina bifida.

Management: All four cases were given tab Misoprost 400 mcg P/V followed by tab Misoprost 200 mcg kept P/V 4th hourly. In all four cases fetuses were expelled within 12 to 16 hours.
Good and quick response was seen with the Tab Misoprost 200 mcg P/V. Post abortal period was uneventful.

Conclusion: It is important to identify the congenital anomalies at an early gestational age by various screening methods like the NT scan, triple marker, TIFFA scan, amniocentesis, chorionic villous sampling (CVS) to prevent maternal morbidity. All the above patients with congenital anomalies were unbooked, and they were managed with Tab. Misoprost. Supplementation with folic acid preconceptionally and in early pregnancy has reduced the incidence of birth defects.

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A CASE OF ENDOMETRIAL HYPERPLASIA WITH ATYPIA

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Study question: Whether endometrial biopsy be patients opting for IVF before FET?

What is currently about the subject: PCOS (Polycystic Ovarian Syndrome) is a heterogenous complex endocrine disorder with metabolic and reproductive implications. PCOS is a known risk factor for endometrial carcinoma because of its unopposed estrogen exposure. The management of PCOS is traditionally directed for ovulation induction in infertile couples and in adolescents through lifestyle modifications due to its impact on metabolic implications and multiple systemic involvement, the long-term impact of which still may not be known. Protecting the endometrium is also part of treatment in both groups. But the majority of times, in an infertile couple, treatment is restricted to ovulation induction and evaluating other factors related to infertility. Through this case, we are projecting the question of whether biopsy can be part of a normal evaluation in PCOS patients.

Study design, size, duration, material and methods: Ours is a case report of a 28-year-old nulliparous woman who came to our OPD with a history of subfertility since 9 years. She was a case of severe PCOS who had only had withdrawal bleeds for the last 12 years. The male factor evaluation was normal. HSG normal. She had multiple attempts of OI and IUI outside. She had D & C done outside, which was suggestive of endometrial hyperplasia with atypia. No treatment was given for it. After discussion with the patient, she decided to go ahead with IVF. Patient was started on stimulation with antagonist protocol and agonist trigger. Minimal OHSS in the postoperative period. She was taken for a diagnostic hysteroscopy and biopsy, which revealed the same report. Started with MPA 30 mg for 3 months; repeat biopsy taken after 3 months was s/o complex hyperplasia with atypia. Oncologist advice was taken they suggested MIRENA and megestrol 400 mg bd. A biopsy after 3 months was suggestive of complete decidualization with no hyperplasia. Patient was taken for FET, two blastocysts were transferred, and twins were conceived.

Results: Through this case, we suggest that an endometrial biopsy can be offered to all patients with PCOS opting for IVF before FET. Large scale studies are required to validate the same.

Limitations of study: Large scale data and RCT are required for implications in general.

Conclusion: Routine endometrial biopsy can be offered to all patients of PCOS opting for IVF before FET.

Study funding/competing interest(s): No.

Is it a clinical trial: No.

Ethical clearance done or not: Not required.

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IS FILARIASIS A NEGLECTED CAUSE OF MALE INFERTILITY IN TROPICAL COUNTRIES?

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Study question: To identify the role of filariasis in causing male infertility and need of reframing diagnostic test panel in azoospermic males.

What is currently about the subject: Male factors account for about 50% of couples with infertility. About 10% to 15% of infertile men suffer from azoospermia, with approximately 40% having obstructive azoospermia. Congenital bilateral absence of vas deferens, infections causing obstruction of the vas deferens (gonorrhea, chlamydia, TB), vasectomy, Kartergener syndrome, young syndrome, and ejaculatory dysfunction are considered major etiologies. Tropical diseases like filariasis have not yet been identified as a major etiological agent in male infertility and are therefore not included as part of the diagnostic workup. Although lymphatic filariasis affects 863 million people worldwide, there are only a handful of case reports showing the presence of filarial worms in testicular specimens.

Study design, size, duration, material and methods: Study design: a case report. Study site: Center of Reproductive Medicine, Kalinga Institute of Medical Sciences, Bhubaneswar. Detailed case description of an infertile couple with a male partner having azoospermia and scrotal filariasis will be presented along with review of the literature.

Results: In our case, we found a live filarial worm along with live sperms in the testicular specimen of the asymptomatic male partner with azoospermia, which might have been the cause of infertility in the couple.

Limitations of study: A single case study requires more case reports before reaching a conclusion.

Conclusion: Filariasis might not be a major cause of infertility worldwide, but it is definitely of some significance in countries like ours. The present case makes us think about the need for routine filarial antigen tests in azoospermic males and semen analysis in filariasis patients, which need further conclusive evidences.

Study funding/Competing interest(s): No.

Is it a Clinical Trial: No.

Ethical clearance Done or Not: Not required.

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ABSTRACT A CASE OF LARGE BENIGN SEROUS CYSTADENOMA OF OVARY

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Study question: Benign serous cystadenoma of ovary.

What is currently about the subject: A case of a large benign serous cystadenoma of ovary in reproductive age

Study design, size, duration, material and methods: A 21-year-old, unmarried women, with benign serous cystadenoma in left ovary measuring 30 × 28 cm.

Results: Laparotomy done and patient conceived spontaneously.

Limitations of study: One patient.

Conclusion: Cystectomy with salpingectomy done and patient conceived later.

Study funding/competing interest(s): No.

Is it a clinical trial: No.

Ethical clearance done or not: Not required.

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A CASE OF PCOS, INFERTILITY, HETEROTOPIC PREGNANCY

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Study question: Management of infertility in a nulliparous women with PCOS and heterotopic pregnancy and its management

What is currently about the subject: Polycystic ovarian syndrome is an endocrine and reproductive disorder with prevalence ranging from 5% to 13% in women of reproductive age. PCOS is the primary cause of hyperandrogenism and oligo-anovulation at reproductive age and often associated with infertility, clinical, and metabolic disorders. The prevalence of infertility in women with PCOS varies between 70% and 80%. The principle infertility treatment initially includes preconceptional guidelines and use of drugs to induce mono or bifollicular ovulation. First line of management being medical clomiphene citrate is the first choice for ovulation induction

Study design, size, duration, material and methods: Study design: A prospective study conducted in nulliparous women with PCOS and ovulation induction treatment with clomiphene citrate. Size: One hundred women in reproductive age group. Duration: 6 months May 2022 to October 2022.

Materials and methods: Complete blood picture, random blood sugar, thyroid profile, serum FSH, LH serum prolactin Montoux test, ESR, USG-abdomen, and pelvis USG-follicular study

Results: Nulliparous women with PCOS conceived with ovulation induction treatment with clomiphene citrate 50 mg given bd from 2nd day to 5th day of cycle for two to three cycles at least.

Limitations of study: Multiparous pregnant women

Conclusion: This is a case of nulliparous women with PCOS, anxious to conceive received ovulation induction treatment with clomiphene citrate. She conceived and had a heterotopic pregnancy. The extrauterine gestational sac along with the fallopian tube was removed by laparotomy and salpingectomy and intrauterine pregnancy was allowed to continue resulting in her normal vaginal delivery of a healthy live preterm baby of weight 1.8 kg at 32 weeks of gestation as a result of PPROM.

Study funding/competing interest(s): No.

Is it a clinical trial: Yes.

Ethical clearance done or not: Yes.

Theme: Early pregnancy and imaging – RPL

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ABSTRACT SUCCESSFUL PREGNANCY IN A WOMAN WITH RPL AND SLE

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Study question: A case report of successful pregnancy in a woman with RPL and SLE

What is currently about the subject: Systemic lupus erythematosus (SLE) is a multi-system autoimmune connective tissue disorder that primarily affects women of childbearing age. Lupus is a heterogeneous autoimmune disease that results in interactions between susceptibility genes and environmental factors. It is associated with increased risk of first trimester miscarriages, IUGR, premature rupture of membranes, preterm membranes, and stillbirths. Recurrent pregnancy loss (RPL) is defined as three consecutive pregnancy losses prior to 20 weeks from the last menstrual period. There are many causes of RPL, such as genetic, anatomic, immunologic, hormonal causes. In the recent years, systemic autoimmune diseases like anti phospholipid antibody syndrome (APS), undifferentiated connective tissue disease (UCTD), and systemic lupus erythematosus (SLE) are found to be important causes of RPL.

Study design, size, duration, material and methods: This is a case of a 31-year-old woman, came with a history of four recurrent miscarriages, all in the first trimester and medically managed. She was evaluated for RPL, in which the presence of auto antibodies was confirmed. (ANA, dsDNA, and anti-Smith antibodies). Preconceptionally, she was started on folic acid, aspirin 75 mg, and HCQ 200 mg OD. After 2 months, she conceived spontaneously. After confirming its viability, Inj. LMWH (low molecular weight Heparin) was started. She progressed to term and delivered a healthy male baby of 2.3 kg by LSCS.

Results: The planning of pregnancy with continual treatment during pregnancy, no flare of SLE in the previous 6 months, and absence of nephritis are important for good maternal and fetal prognosis. Conception in remission reduces the likelihood of a flare. It is vital to maintain disease remission and treat any flares rapidly.

Limitations of study: The diagnosis of RPL combined with systemic autoimmune diseases is difficult at present because of limited basic and clinical research.

Conclusion: SLE provides challenges in the prepregnancy, pregnancy, and postpartum period for these women, and for everyone who provides their care. Successful pregnancy in our case defines the importance of a multidisciplinary approach and the use of LMWH and low dose aspirin in pregnancy to improve maternal and fetal outcome.

Study funding/competing interest(s): No

Is it a clinical trial: No

Ethical clearance done or not: Yes

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ABSTRACT PROGESTIN-PRIMED OVARIAN STIMULATION PROTOCOL FOR PATIENTS IN ASSISTED REPRODUCTIVE TECHNOLOGY: A META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Study Question: Is PPOS effective in ovarian stimulation protocol and is beneficial for patients with different ovarian reserve functions?

What is currently about the subject: Progestin primed ovarian stimulation (PPOS) is a new ovarian stimulation protocol that can block the luteinizing hormone (LH) surge through progesterone instead of traditional down regulating or gonadotropin-releasing hormone (GnRH) antagonist, and in order to achieve multi follicle recruitment.

Study design, size, duration, material and methods: A meta-analysis of randomized controlled trials. Searched published randomized controlled trials (RCTs) about PPOS on Cochrane library, PubMed, Embase, and Web

Science. The data were extracted, and the meta-analysis was performed on ovarian stimulation as well as embryological and clinical outcomes.

Results: The clinical pregnancy rates and live birth or ongoing pregnancy rates with the PPOS protocol were not different from those with the control group. In the diminished ovarian reserve (DOR) subgroup, the PPOS protocol had a lower rate of premature LH surge. The PPOS protocol had a lower rate of ovarian hyperstimulation syndrome (OHSS). The secondary outcomes showed that the number of oocytes retrieved, MII oocytes, and viable embryos were higher than that of the control protocol in DOR patients and normal ovarian reserve (NOR) patients.

Limitations of study: This is a study-level meta-analysis that provides average patient characters. The lack of treatment-level data prevents us from assessing the impact of different stimulation protocols on treatment effects.

Conclusion: The findings suggest that PPOS is an effective ovarian stimulation protocol and is beneficial for patients with different ovarian reserve functions, which needs to be validated in more RCTs with larger samples.

Study funding/competing interest(s): No.

Is it a Clinical Trial: No.

Ethical clearance done or not: Not required.

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ABSTRACT SPONTANEOUS OVARIAN HYPERSTIMULATION – A DIAGNOSTIC DILEMMA

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Study Question: Ovarian hyperstimulation syndrome (OHSS) is an iatrogenic entity that is enocuntered after exogenous gonadotropin administration. Spontaneously occurring cases are rare and pose a diagnostic dilemma.

What is currently about the subject: Ovarian hyperstimulation syndrome (OHSS) develops most commonly as an iatrogenic complication of exogenous gonadotropin administration for controlled ovarian stimulation as a part of assisted reproductive technology. Clinically, the presentation of OHSS may range from abdominal pain and bloating, nausea, vomiting, and ovarian enlargement to possibly life-threatening conditions including renal failure, hypovolemic shock, adult respiratory distress syndrome, thromboembolism, and pericardial effusion. Spontaneous ovarian hyperstimulation syndrome is a rare condition, which has been described in association with pregnancy in patients with polycystic ovarian disease, severe primary hypothyroidism, granulosa cell tumors, and in a handful of cases, in association with a gonadotroph secreting pituitary adenoma. Gonadotroph adenomas are a common subtype of non-functioning pituitary adenomas (NFPAs) but even when they do secrete gonadotropins, the secreted hormones are usually clinically silent. Therefore, these adenomas are mostly recognized through immunohistochemical evaluation only.

Study design, size, duration, material and methods: A 29-year-old female presented with recurrent episodes of acute abdominal pain for 3 months. On transvaginal ultrasonography, she had an enlarged right ovary of 470 cc with multiple enlarged cyclic follicles, suggestive of OHSS. However, she had no history of exogenous gonadotropin intake, recent pregnancy, or hypothyroidism. Three months ago, she suffered a similar episode of acute pain and was diagnosed with bilaterally enlarged (729 and 227 cc) multicystic ovaries with features of transient torsion of the right ovary, for which she underwent a left oopherectomy and a right ovarian cystectomy. She also had a history of recent onset galactorrhoea. Her serum estradiol levels were grossly elevated to 1280 pg/mL, prolactin was 117.4 ng/mL but FSH (11.02 mIU/mL), LH (0.63 mIU/mL), Cortisol (17.7 mcg/dL), and Beta-hCG.

Results: After an endocrinology and neurosurgery consult, an MRI was done, and it confirmed the presence of a well-defined T2 hyperintense, T1 hypointense, poorly enhancing lesion in the sella of 13 × 12 × 12 mm, suspected to be a pituitary macroadenoma secreting FSH. She underwent transsphenoidal surgery, and the tumor was successfully resected, as confirmed by a post-operative CT scan. The following observations were made on day 3 post op biochemistry – FSH of 1.32 mIU/mL, LH <0.1 mIU/mL, Prolactin 2.67 ng/mL, Estradiol 72.1 pg/mL. Histopathological examination confirmed a secretory pituitary adenoma and immunohistochemistry was positive for FSH. The USG done after 2 months showed a near-normal right ovary. A pathophysiological classification system of spontaneous OHSS has been suggested by Panagiotopoulou et al., which entails four types of spontaneous OHSS: type I corresponds to the mutated FSH receptor with normal FSH, hCG, and TSH levels; type II to cases secondary to high hCG levels; type III is related to hypothyroidism; and type IV includes gonadotroph adenomas secreting FSH or LH. To our knowledge, only 33 cases of FSH-producing macroadenomas have been reported to date, and since the gynecologist remains the first point of contact, awareness of possible presentations is of the utmost importance.

Limitations of study: This was a singular case report, and further research may be proposed into causes, diagnostic algorithms, and treatment options in various cases of spontaneous OHSS so as to avoid delay in diagnosis and treatment.

Conclusion: NFPAs account for 15% to 30% of pituitary adenomas. However, the prevalence of OHSS is only 8.1% among patients with a proven gonadotroph adenoma. Earlier detection and focused treatment can be offered to such patients by increasing awareness of this entity, its clinical picture, and typical hormonal profile.

Study funding/competing interest(s): No.

Is it a clinical trial: No.

Ethical clearance done or not: Not required.

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