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From the Editors Desk.....

Greetings to all,

ESHRE 2018 at Barcelona witnessed 12,179 participants from 130 countries attended.

In Europe, Spain remains the most active country in assisted reproduction. ESHRE has collected the national registry data of ART cycles performed in Europe since 1997 and for its latest report (for 2015) found that a record 119,875 treatment cycles were performed in Spain, which now sets the pace of European treatment ahead of Russia (110,723 cycles), Germany (96,512) and former front runner France (93,918). The cycles monitored by ESHRE include treatments with IVF, ICSI, and egg donation.

Clinics in Europe continue to favour ICSI over IVF by around two-to-one (356,351 ICSI, 131,221 IVF), a pattern now evident throughout the world. ICSI was developed in the early 1990s as a specific treatment for male infertility (low sperm counts, poor sperm quality) but is now clearly used for fertilisation in non-male cases.

- Pregnancy rates (as measured per embryo transfer) seem to have stabilised in Europe at about 36% for both IVF and ICSI. Pregnancy rates are higher with five-day old embryos (blastocysts) than with three-day.
- Pregnancy rates from egg donation continue to rise (now at about 50%).
- The rate of twin pregnancy continues to decline in Europe, in 2015 to around 14%. Similarly, the rate of single embryo transfers continues to rise - from 11% in 1997 to 38% in 2015.

A study calculated that the global need for advanced fertility treatments was around 1500 cycles per million population per year.

With these news to ponder upon I welcome each one of you for the XIXth Annual meeting of Trivandrum OBGYN club to enjoy the academic feast.

Dr. K. Jayakrishnan



Excerpts from ESHRE 2018, Barcelona

Forty years after the birth of Louise Brown, the world's first test-tube baby, an international committee monitoring progress in assisted reproduction reports today that the global total of babies born as a result of IVF and other advanced fertility treatments is "more than 8 million".

The figure, calculated from data collected from regional registries from 1991 to 2014, represent another steep rise in the cumulative use of IVF in the treatment of infertility. Estimates are that more than a half million babies are now born each year from IVF and ICSI from more than 2 million treatment cycles performed.

Fatigue is a common but underestimated symptom of endometriosis.

Fatigue is a common but underestimated symptom of endometriosis, according to findings from an international study of over 1100 women, published today (Wednesday) in Human Reproduction [1], one of the world's leading reproductive medicine journals.



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The study found that the prevalence of fatigue was more than doubled in women diagnosed with endometriosis compared to those who were unaffected by the condition, and it remained significant after the results were adjusted for other factors that might play a role in fatigue, such as pain, insomnia, occupational stress, depression, BMI and motherhood.

"These findings suggest that endometriosis has an effect on fatigue that is independent of other factors and that cannot be attributed to symptoms of the disease," said Professor Brigitte Leeners, deputy head of the Department of Reproductive Endocrinology at the University Hospital Zurich, Switzerland, who led the research. We believe that in order to improve the quality of life for women with this condition, investigating and addressing fatigue should become a routine part of medical care, and doctors should investigate and address this problem when they are discussing with their patients the best ways to manage and treat the disease. It would also help these women if steps were taken to reduce insomnia, pain, depression and occupational stress."

The researchers recruited 1120 women, 560 with endometriosis matched with 560 without it, from hospitals and private practices in Switzerland, Germany and Austria between 2010 and 2016.

The women completed a questionnaire that asked about various factors relating to quality of life and endometriosis, as well as medical and family histories, life style and mental disorders. Fatigue and insomnia were categorised into five different levels ranging from 1 (never) to 5 (very often).

They found that 50.7% of women diagnosed with endometriosis suffered from frequent fatigue compared to 22.4% of women without the condition. Fatigue with endometriosis was also associated with a more than seven-fold increase in insomnia, a four-fold increase in depression, a two-fold increase in pain and a nearly 1.5-fold increase in occupational stress. Age, time since first diagnosis and the stage of the disease were not linked to fatigue.

The researchers say that a possible reason why endometriosis could cause fatigue, independently of the other factors, is that the endometrial lesions may be causing inflammation that activates the immune system. Proteins called cytokines that are involved in cell signalling when the immune system is activated have been shown to play a role in fatigue symptoms. Chronic exposure to high stress can result in adrenal fatigue, and this could be an additional possible explanation.



Limitations of the study include the fact that answers to the questionnaires are subjective and at risk of bias from failure to accurately recall experiences in the past six months, and the fact that the researchers did not have information on the exact medication taken during the relevant period.

Partnership problems and not career planning mainly explain why women are freezing their eggs

Fertility clinics urged to make patient-centred care for single women 'a high priority'

Contrary to common suggestion, women are opting to freeze their eggs not to pursue education or careers but for reasons "mostly revolving around women's lack of stable partnerships with men committed to marriage and parenting".

Behind the claim lie in-depth interviews with 150 women who had chosen to freeze their eggs at fertility clinics in the USA (114 women) and Israel (36 women).

The majority of women in the study (85%) were without partners at the time of egg freezing, reflecting six different life circumstances - being single, divorced or divorcing, broken up from a relationship, working overseas, single mother by choice or circumstance, and career planning. Choosing elective egg freezing for planning a career was the least common of these six pathways, even among women who worked for companies with egg freezing insurance coverage

Those with partners (15%) faced four different life circumstances - with a man not ready to have children, in a relationship too new or uncertain, with a partner who refuses to have children, or with a partner with his own multiple partners. "Most of the women had already pursued and completed their educational and career goals," Inhorn explained, "but by their late 30s had been unable to find a lasting reproductive relationship with a stable partner. This is why they turned to egg freezing."

Elective egg freezing is one of the fastest growing services in many fertility clinics today. Its growth took off after the widespread introduction of vitrification, a fast-freezing technology which reduces cells to a glass-like state in just a few seconds.

Meanwhile, the clinical outcome of elective egg freezing remains unclear, with few women so far thawing and using their eggs. Patrizio suggests from available data that in general it seems advisable for women under 35 years old to cryopreserve 10-12 eggs and for women over 35 around 20 eggs to have a reasonable chance of later pregnancy.

A CASE OF RECURRENT UTERINE SEPTUM

◀ Dr AISHWARYA



Mrs. X, aged 30 years, A2, presented to our OPD with infertility and recurrent pregnancy loss. She was married for 5 years, and had regular menstrual cycles. She had two miscarriages, first being spontaneous conception and second conceived after IVF at another hospital. She had undergone many hystero salpingography outside which showed septate uterus and bilateral tubal block and so she subsequently underwent operative laparoscopy and operative hysteroscopy in August 2015 at another hospital.

Operative hysteroscopy - septal resection was done thrice consecutively in the months of August, September and October 2015, following which one cycle of IVF was done in the same hospital, but unfortunately she had a missed miscarriage at 60 days of gestational age. The operation notes from the hospital where the procedures were done said that complete septal resection was done all the three times. MRI pelvis done outside in Feb 2018 showed complete septate uterus with bilateral PCOD, with septum measuring 2.68 x 1.11 x 1.09 cm.

On evaluation, routine blood and urine tests were normal. APLA was negative. USG pelvis was done which showed complete septum measuring 16 x 6 mm. She was posted for Operative laparoscopy and operative hysteroscopy. Intraop findings were complete uterine septum extending from the fundus upto the level of internal os. Hysteroscopic septal resection was done using resectoscope till both the ostia were seen at the same level. Chromotubation showed both fallopian tubes to be patent. Minimal endometriotic lesions were fulgurated. Post operative period was uneventful and she was prescribed cyclical estrogen and progesterone for two months to promote endometrial healing.

DISCUSSION

Septate uterus is the commonest type of congenital uterine anomaly, with incidence being 55%. It is classified as a class 5 mullerian duct anomaly. It is the most common anomaly associated with reproductive failure (67%), affecting about 15% of women with recurrent pregnancy loss.

Signs and Symptoms: it is associated with a higher risk for miscarriage, premature birth and malpresentation. The condition is also associated with abnormalities in the renal system. Further, skeletal abnormalities have been linked to the condition.

Pathology: Septate uterus is considered a type of uterine duplication anomaly. It results from partial or complete failure of resorption of the uterovaginal septum after fusion of the paramesonephric ducts. The septum is usually fibrous but can also have varying muscular components.

Subtypes: Partial septum- involves endometrial canal but not the cervix

Complete septum- when it extends to either the internal or external cervical os

Septate uterus and vagina- when septum extends into the vagina

Associations: As with other uterine anomalies, concurrent renal anomalies may be associated.

Diagnosis: A pelvic examination may reveal a double vagina or double cervix that should be further investigated and may lead to the discovery of a uterine septum. In most patients, however, the pelvic examination is normal.

Accuracy of hysterosalpingogram alone is only 55% for differentiation of septate uterus from bicornuate uterus. An angle of less than 75 degrees between the uterine horns is suggestive of the septate uterus, and an angle of more than 105 degrees is more consistent with bicornuate uterus.



On ultrasound, septate uterus may be diagnosed by the echogenic endometrial stripe separated at the fundus by the intermediate echogenicity septum. The external uterine contour demonstrates a convex, flat or mildly concave configuration and may best be appreciated on coronal images of the uterus. Septum may show vascularity in

70% of cases, which are associated with a higher rate of obstetric complications. 3D USG is an excellent non-invasive method to delineate the condition.

MRI is considered the current imaging modality of choice. On MR images, the septate uterus is generally normal in size and each endometrial cavity appears smaller than the configuration of a normal cavity. The septum may be composed of fibrous tissue (low T2 signal intensity), myometrium (intermediate signal), or both.

Treatment and prognosis: The distinction between septate uterus and bicornuate uterus has important management implications. In septate uterus, the septum can be resected to form a single uterine cavity without perforating the uterus. Reproductive outcome has been shown to improve after resection of the septum.



Tryst with Destiny....!

23 Year old Ms X on evaluation for irregular cycles and hirsutism was incidentally detected with a large ovarian cyst. Henceforth she reported to KJK for further management. Once in KJK we had her scan repeated and it was consistent with a large cystic lesion of about 8 cm in size with papillary projections. Right ovary was found to be normal so was the uterus. All tumor markers were sent for. CA 125 was found to be moderately elevated, rest of the tumor markers appeared normal. Later for further conclusion we had an MRI done which was suggestive of a cystic neoplasm of left ovarian origin consistent with solid papillary projections suggesting the possibility of borderline ovarian malignancy / malignant ovarian tumour. We planned the patient for a laparoscopic procedure. Explaining the possible need of conversion to staging laparotomy and need for salpingo oophorectomy of the affected side. Empirically the matter was discussed with a consultant oncologist and they advised oophorectomy in endobag and contained morcellation of the specimen.

Intra operative findings were as follows, Left ovary enlarged to about 7 cm with papillary growth. Right ovary had a small nodular growth. Liver and rest of the abdomen appeared normal. Peritoneal fluid was taken for cytology, Left salpingoophorectomy conducted and right nodule from the ovary was excised." In bag" morcellation of the specimen was carried meticulously avoiding spillage and contents retrieved via 10 mm umbilical port. On follow up HPR was suggestive of Borderline serous tumour. We had the specimen and block sent to RCC for second opinion. Patient is on follow up.

DISCUSSION

Borderline ovarian tumors represent a heterogeneous group of noninvasive tumors of uncertain malignant potential with characteristic histology. They occur in younger women at an early stage and have a favorable prognosis, Borderline ovarian tumors (BOTs) form a separate entity within the group of epithelial ovarian tumors acknowledged by the International Federation of Gynecology and Obstetrics (FIGO) in 1961 and adopted by the World Health Organization (WHO) in 1973. Three terms are currently used to refer to these tumors: borderline tumor, tumor of low malignant potential, and atypical proliferative tumour. Borderline ovarian tumors comprise about 15%-20% of all epithelial ovarian malignancies with an incidence of 1.8-4.8 per 100,000 women per year. BOTs differ significantly from ovarian carcinomas with regard to percentile distribution of tumor histotypes, lower FIGO stage, excellent overall prognosis, younger age distribution, higher infertility rate, and a lower frequency of BRCA mutations.

Prognosis of borderline ovarian tumors is generally excellent; however, 11% of these tumors recur and show malignant transformation in 20%-30% of them. To date, there is no agreement on the definition of prognostic factors in terms of recurrence as invasive disease.

Almost 30% of patients with BOTs are asymptomatic; approximately 50%-60% of patients complain about nonspecific symptoms (abdominal pain or abdominal distension) and 10% complain of bleeding abnormalities. Most BOTs are detected by ultrasound. Ultrasound is broadly accepted as a highly accurate preoperative method in discriminating between benign and malignant adnexal masses if performed by experienced ultrasound examiner. They often manifest as unilocular-solid or multilocular-solid tumors with irregular and prefunded papillary projections without other signs of complexity, such as a solid pattern, irregular septae, and irregular inner walls due to tumor deposits in young women. Their cyst fluid can be anechoic or have low-level or ground-glass echogenicity.

Regarding the efficacy and safety of conservative surgery (i.e., involving the preservation of the uterus and at least part of one ovary, with comprehensive surgical staging) for borderline tumors of the ovary in all stages. When conservative management is not feasible because of massive bilateral

ovarian tumor involvement, at least the uterus can be preserved for eventual transfer of frozen embryos obtained before radical surgery. The available data suggest that the rate of recurrence is higher after conservative surgery (10% to 20% vs. approximately 5% for radical surgery). Concerning the indication of conservative treatment in higher stages of disease, conservative management should be limited to a select group of patients with complete resection of peritoneal spread and noninvasive implants.

Removal of the preserved ovary after patients complete their fertility plans depends on several factors such as histological subtype, FIGO stage of disease, type of conservative surgery, and the patient's own wishes. Based on the fact that most recurrent diseases are of the borderline type, easily curable, and with excellent prognosis, several teams suggest that systematic removal of the remaining ovary after childbearing is not mandatory as long as the patients engage in regular, close follow-up examinations

Laparoscopy is more frequently used for conservatively treated patients. Laparoscopic management of borderline ovarian tumors is associated with a higher rate of cyst rupture and incomplete staging. Ideally all laparoscopic procedures should nevertheless be performed by experienced surgeons trained in extensive laparoscopic procedures in order to obtain optimal surgical staging, complete debulking, and better results in terms of both relapse-free survival and fertility preservation rate.

Regular and intensive follow-up of the patients is essential for the early detection of recurrence in the form of borderline or invasive disease. The overall recurrence rate for patients previously treated for BOTs is estimated to be up to 11%. Follow-up is usually a combination of clinical examination, ultrasound, and CA125 levels. Because mucinous tumors often do not express CA125, some authors suggest that CA19-9 can be used for the evaluation of these tumors instead. The level of serum tumor marker is usually followed in patients who displayed positive levels of CA125 or CA19-9 in their primary diagnosis of BOTs. During the initial 2 years, follow-up evaluation is performed every 3 months. Patients are then evaluated biannually for 3-5 years after surgery, and then annually thereafter. To conclude never ever miss your BOT. ●

OVARIAN TORSION IN PREGNANCY



A 24 years old woman, G2A1, H/o Missed miscarriage with 26 weeks gestational age of pregnancy presented to the emergency department with right sided abdominal pain which is non radiating, sharp, severe, 3-4 episodes of vomiting, sudden onset.

Reported with no vaginal bleeding, or discharge, or fever, or diarrhea or constipation.

Abdominal examination revealed a 26-28 weeks gestation with uterine irritability, voluntary guarding.

Laboratory results-Tumour markers (CA 125, CEA, LDH, SBHCG) are not significantly raised.

Transabdominal ultrasonography visualized a single live intrauterine fetus with good fetal heart and adequate liquor in utero with gestational age of 21 weeks. In the right adnexa, a large unilocular clear cyst measuring 14 x 8 cm noted superior and towards left side of the uterus, torsion of ovarian cyst suspected. No free fluid seen. Colour flow Doppler was normal. Planned for emergency operative laparoscopy with informed consent.



Operative findings: Uterus enlarged with the pregnancy of 26 weeks size. Right ovary is enlarged with cyst around 14cm clear unilocular cyst. It had undergone torsion twice around its pedicle. Both tubes and left ovary appears to be normal.

Procedure: Cyst contents aspirated, detorsion done and proceeded with cystectomy.

After untwisting the ovarian pedicle, ovary returned to its normal colour, showed no signs of hemorrhage, or necrosis.

Post operative period is uneventful. Patient recovered from her surgery and was discharged on 3rd post operative day.

HPR shows corpus luteal cyst.

Diagnosis:

1. Ultrasound is the diagnostic modality of choice and will most often reveal a unilateral ovarian enlargement that appears solid, cystic, or complex, with or without fluid collections in the pouch of Douglas.

2. Color Doppler sonography often depicts an enlarged ovary without perfusion of the parenchyma.

3. Magnetic resonance imaging (MRI) can be used to avoid the risk of ionizing radiation. MRI findings consistent with ovarian torsion include a thick edematous pedicle and ovary, lack of enhancement, and signal intensities consistent with hemorrhage.

Treatment: Expedient surgery is a requisite treatment for ovarian torsion.

A 2015 in BMJ Best Practice says "Laparoscopic surgery with detorsion is the preferred treatment to preserve normal ovarian function and fertility".

"Patients with either a suspected or confirmed diagnosis of ovarian torsion should be admitted and either operated on or observed by a gynecologist. Laparoscopy can be used for both confirmation of the diagnosis and treatment." ●

A CASE OF ACUTE MILD IDIOPATHIC PANCREATITIS IN PREGNANCY:



34 yr old primigravida with h/o lap myomectomy in March 2017, IUI conceived, known overt diabetic on insulin, hypothyroid on Thyronorm with EDC on 27/06/2018. Patient also has h/o hyperemesis gravidarum, which continued till second trimester managed conservatively and 1 episode of threatened abortion. She presented at 33 weeks of gestation with severe upper abdominal pain and vomiting. On clinical examination, her vitals were stable, abdomen soft with tenderness over upper abdomen, Uterus 32 weeks with good fetal heart rate.

Laboratory findings revealed Hb-11, TC- 10000, Total Bilirubin-1.5mg/dl, ot-p-22/10IU/L, Serum Calcium-8.1Meq/dl, Serum Amylase-240IU/l, Serum Lipase-268IU/l. USS showed no evidence of gall stones or pancreatitis. Gastro consultation was sought. Possibilities of acute mild pancreatitis vs severe gastritis were considered. Patient was admitted in labour room, kept nil orally for 1 day, and then soft bland diet given, hydration maintained with i/v fluids, analgesics were given. Serum amylase/lipase came down to 79/170 IU/l after 4 days and patient was symptomatically relieved and hence discharged.

Regular follow up was done till 36 weeks. On 2/06/18, she presented again with abdominal pain and vomiting, with a Serum amylase /lipase value of 507/2543 iu/L respectively. Emergency caesarean was done in view of non reassuring NST on the same day at 36 weeks 3 days. Baby was healthy with apgar score of 9 and birth weight of 2.36 kg. Patient's post operative period was monitored intensively, she was symptomatically relieved amylase /lipase came down to 64/94iu/l on POD-4. patient was discharged on POD-6.

DISCUSSION: Acute pancreatitis in pregnancy (APIP) is a rare event, occurring in approximately 3 in 10000 pregnancies. AP is characterized by acute onset, many complications, and high mortality and is a challenging clinical entity in terms of diagnosis and management with risks to both mother and developing fetus.

Among the various etiological factors for AP in pregnancy, gall stone disease is the most common, followed by congenital or acquired hypertriglyceridemia, and rarely associated with preeclampsia-eclampsia or HELLP Syndrome, fatty liver of pregnancy, trauma, medications or may be idiopathic.

APIP can occur during any trimester of pregnancy, but over a half occur during third trimester. The spectrum of APIP ranges from mild pancreatitis to serious pancreatitis associated with necrosis, abscesses, pseudocysts, and multiple organ dysfunction syndromes. Fetal complications include preterm birth and in utero death. The diagnosis of APIP according to the revised Atlanta classification requires 2 of the 3 following features; (1) abdominal pain consistent with acute pancreatitis, (2) serum amylase and lipase activity increased at least 3 times the higher normal serum levels, (3) characteristic imaging findings of acute pancreatitis on USS/MRI/CT.

Medical management includes hospitalization, analgesics, intravenous hydration, bowel rest and fetal monitoring. The treatment of APIP should be conservative as far as possible with delaying the definitive treatment until delivery of baby. A multidisciplinary approach including gastroenterology and obstetric care seems to be the key in making the best choice for management of APIP.

A CASE OF SUBMUCOUS FIBROID

◀ Dr Nishitha



Mrs X aged 35 years P2L1A1 IUD 1, presented to our OPD with complaining of abnormal uterine bleeding and reduction in haemoglobin. Her menstrual cycle was regular with heavy menstrual bleeding since last 6 months which were not stopped with medications. Ultrasonography reveals 4 cm of fibroid polyp in the endometrial cavity. After correction of anemia and preoperative evaluation patient was taken up for the hysteroscopic submucous fibroid resection. The procedure was carried out with bipolar wire loop resectoscope with normal saline as distension media and specimen sent for histopathological examination. Patient had an uneventful postoperative period and was discharged on day 2. Cyclical estrogen and progesterone given for 2 cycles.

Discussion

Abnormal uterine bleeding (AUB) in nonpregnant reproductive-age women is a common gynecologic symptom. AUB is defined as a Bleeding from the uterine body (or corpus), that is abnormal in frequency, regularity, duration, and/or volume, and has been present for at least the majority of the past six months. A comprehensive but flexible classification system for underlying etiologies of AUB has been developed by the International Federation of Gynecology and Obstetrics Menstrual Disorders Committee (FIGO MDC).

Uterine leiomyomas are the most common pelvic tumor in women. Abnormal uterine bleeding, the most common symptom associated with fibroids, is most frequent in women with tumours that abut the endometrium (lining of the uterine cavity), including submucosal and some intramural fibroids. This is likely due to distortion of the uterine cavity and an increase in the bleeding surface of the endometrium. Submucosal leiomyomas, which derive from myometrial cells just below the endometrium, account for approximately 15 to 20 percent of fibroids.

Hysteroscopic myomectomy is performed to remove intracavitary fibroids, a term that refers to submucosal leiomyomas and some intramural leiomyomas for which most of the fibroid protrudes into the uterine cavity. It is a minimally invasive procedure that is the procedure of choice for appropriate candidates. The ability to remove intracavitary fibroids depends upon surgical experience and skill.



The most common indications for hysteroscopic myomectomy are abnormal uterine bleeding, recurrent pregnancy loss and infertility. Hysteroscopic myomectomy is contraindicated in women in whom hysteroscopic surgery is contraindicated (eg, active pelvic infection, intrauterine pregnancy, cervical or uterine cancer).

The wire loop with a monopolar or bipolar resectoscope has traditionally been the technique used for hysteroscopic myomectomy. Fluid is instilled to distend the uterus and allow visualization. Continuous fluid monitoring is necessary throughout the procedure to avoid complications (eg, hyponatremia, pulmonary, cardiac, or laryngeal edema) or the need to abort the procedure. Hypotonic solutions (ie, glycine) are used when a resectoscope with monopolar electrical wire loop technique is employed. Bipolar resectoscopes are used with isotonic fluids. Tissue extraction (morcellation) and vaporization devices are used with saline. The goals of newer techniques, such as morcellation or vaporization, is to make resection of fibroids technically easier, produce fewer tissue fragments, require fewer insertions of the hysteroscope, and use saline as the distention medium. These devices are designed to enter only to a shallow depth and therefore are not likely to cause an incision that penetrates the full thickness of the uterine wall. The disadvantage for two of the current hysteroscopic morcellators is that they cannot cauterize bleeding vessels. Only one system, Symphion, utilizes a built-in spot coagulation to control bleeding to maintain continuous visualization. The hysteroscopic morcellator is also not designed to treat deeper myomas, and thus, is limited to use in women with hysteroscopic type 0 or type I leiomyomas. Series of 200 or more hysteroscopic myomectomy procedures report a complication rate of 0.8 to 2.6 percent. Complication includes uterine perforation, excessive fluid absorption, excessive bleeding, intrauterine adhesions and infection.

Hysteroscopic classification of submucous fibroids

Wamsteker's classification

- 0 - Fibroids totally in cavity
- 1 - More than 50% in cavity
- 2 - Less than 50% in cavity



Adopted by ESGE

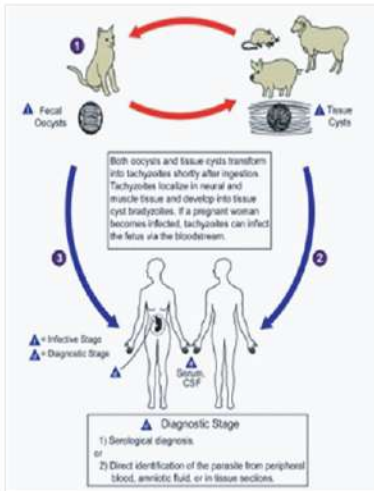


TOXOPLASMOSIS DURING PREGNANCY: A CASE REPORT & REVIEW OF THE LITERATURE.

◀ Dr Abhilash Antony V



Although toxoplasmosis is considered harmless for a non-pregnant woman, it is potentially harmful during pregnancy, especially at first trimester. The aim of this topic is to increase our alertness and monitoring in case of toxoplasmosis during pregnancy, given that when diagnosed it can be effectively treated. Toxoplasmosis when diagnosed on time and treated properly can lead to healthy offspring



Case report:-A 46 years old female, who conceived after oocyte donation, having regular ANC from our institution. Came with loss of foetal movement at 26 week of gestation .advised ultrasound and detected to have absent cardiac activity and diagnosed as intra uterine foetal demise. Her history was negative although she reported that she was taking care of a cat recently. All the other antenatal tests were normal.

The patient was admitted to our centre. Physical examination during admission was normal. Her initial serologic tests were: IgG 23.6 IU/ml(normal range 0-6 IU/ml), IgM 29 IU/ml (normal range 0-10 IU/ml). Along with these test screening for TORCH infectionand APLA screening were also conducted.The finding of positive serology confirmed the presence of a recent toxoplasmosis infection.

The incidence of maternal infection ranges from 1 to 8 per 1000 susceptible pregnancies. The risk of transmitting infection to the foetus increases steeply with the gestational age. Women infected prior to conception do not transmit infection to the foetus, with the rare exception of immune compromised women (eg, AIDS, immunosuppressive medications).

Toxoplasma gondii is an obligate intracellular parasite existing in three forms: the oocyst, shed only in cat feces, the tachyzoite (a rapidly dividing form observed in the acute phase of infection), and the bradyzoite (a slow growing form observed within tissue cysts). During a primary infection a cat can seed millions of oocysts daily for a period of one to three weeks. These oocysts may remain infectious for over a year.

Maternal infection usually results from ingestion of oocysts shed into the environment or from ingestion of bradyzoites or tachyzoites contained in meat or meat products.

Fetoplacental infection can occur immediately after maternal infection, possibly even before development of the maternal serologic response. Although the risk of vertical transmission increases with increasing gestational age, frequency of death or morphological abnormalities of fetus decreases.

Most infants with congenital toxoplasmosis (70-90%) are asymptomatic or without apparent abnormalities at birth. signs present at birth may include fever, a maculopapular rash, hepatosplenomegaly, microcephaly, seizures, jaundice, thrombocytopenia, and rarely generalized lymphadenopathy. The so-called classic triad of congenital toxoplasmosis consists of chorioretinitis, hydrocephalus and intracranial calcification.

Mother-to-fetus transmission rate of *T. gondii*

In first trimester = 10%.In second trimester = 25%. In third trimester >85%.

Most fetuses infected in the third trimester are asymptomatic.

The risk of congenital sequelae and complications in fetus infected in

Early pregnancy = 85%. Late pregnancy = 10-80%.

Serologic tests represent the most commonly used method to establish the diagnosis. IgG antibodies appear within one to two weeks of infection, peak in six to eight weeks and then decline over the next two years, they remain detectable for life. IgM antibodies may appear within the first week of infection and generally decline within a few months.

Polymerase chain reaction (PCR) testing is the preferred diagnostic modality. Abnormalities on antenatal sonography of fetal infections include intracranial densities, increased placental thickness and/or hyperdensity, ventricular dilatation, intrahepatic densities, hepatomegaly, ascites, pericardial and/or pleural effusion.

Prevention of primary infection is based upon educating women on the modes of *Toxoplasma gondii* transmission. Fruits and vegetables should be washed before eating. Consumption of raw eggs, unpasteurized milk, or unfiltered water should be avoided. Mucous membrane contact when handling uncooked

meat, fruit, and vegetables should be avoided, and hands should be washed. Cats that live exclusively indoors and eat cooked food are not at risk of acquiring toxoplasmosis.

An acute infection based upon results of toxoplasma serology is generally treated immediately with the macrolide spiramycin. Spiramycin is concentrated in the placenta where it is thought to treat infection and thereby help to prevent transmission to the foetus however, the ability of this drug to reduce the incidence of vertical transmission is controversial. Spiramycin does not cross the placenta well; thus, it is not effective for treatment of an infected foetus. For this reason, amniocentesis and PCR testing of amniotic fluid for *Toxoplasma gondii* at least four weeks after acute maternal infection in the second trimester, is recommended. If PCR results are negative, spiramycin is continued for the remainder of the pregnancy. If the PCR is positive, suggesting foetal infection, alternative agents are necessary.

There are 2 goals of drug therapy for toxoplasmosis, depending on whether or not fetal infection has occurred.

If maternal infection has occurred but the fetus is not infected - spiramycin is used for fetal prophylaxis (to prevent spread of organisms across the placenta from mother to fetus), preventing vertical transmission of the parasite to the fetus.

If fetal infection has been confirmed or is highly suspected- pyrimethamine and sulfadiazine are used for treatment. Pyrimethamine is a folic acid antagonist that acts synergistically with sulfonamides. This drug should not be used in the first trimester because it is potentially teratogenic. It produces a reversible, dose-related depression of the bone marrow and therefore must be combined with folic acid. The combination of pyrimethamine and sulfadiazine results in a significant decrease in disease severity.

STATISTICS

JANUARY - JUNE 2018

TOTAL SURGICAL PROCEDURES	524	ADNEXECTOMY+ADHESIOLYSIS+		AMNIOCENTESIS	
TOTAL LAPAROSCOPY	153	TUBAL STERILIZATION	01	FRACTIONAL CURETTAGE	01
TOTAL HYSTEROSCOPY	132	ADNEXECTOMY+URETERIC STENTING+		ERA -	
DIAGNOSTIC HYSTEROSCOPY	104	ADHESIOLYSIS+OMENTOPLASTY	01	CRYO CAUTRIZATION OF CERVIX	01
OPERATIVE HYSTEROSCOPY	29	LSO + RIGHT OVARIAN PAPILLARY		EUA	02
HYSTEROSCOPIC PROCEDURES		GROWTH REMOVAL	01	OBSTERTRICS	
SEPTAL RESECTION	05	SURGERY FOR ECTOPIC		TOTAL DELIVERY	165
SMF RESECTION	05	SALPHINGECTOMY	10	LSCS	125
POLYPECTOMY	13	SALPHINGOSTOMY	03	FTND	21
ENDOMETRIAL SAMPLING	05	EXCISION OF OVARIAN ECTOPIC	01	VACUUM DELIVERY	19
ADHESIOLYSIS	01	SURGERY FOR ENDOMETRISIS		MALE SURGERY	
LAPAROSCOPIC PROCEDURE -		CHOCOLATE CYSTECTOMY	13	TESA	07
TLH	12	FULGURATION OF ENDOMETRIOTIC		PESA	06
TLH WITH BSO	11	DEPOSITS	32	TESE	04
LAP MYOMECTOMY	38	OTHER MAJOR SURGERY		CONCEPTION + IUI STATISTICS	
LAP STERILIZATION	05	OPEN MYOMECTOMY	01	TOTAL CONCEPTION	163
OVARIAN CYSTECTOMY	13	VH+PFR	01	TOTAL IUI CONCEPTION	37
ADENENOMYOMECTOMY	06	TAH+BSO	02	IUI CONCEPTION %	13.4%
B/L OVARIOLYSIS	02	TAH	02	SPONTANEOUS	25
LAVH+SALPINGECTOMY+		HYSTEROTOMY	01	COH ONLY	29
ANTERIOR COLPORRAPHY	01	REEXPLORATORY LAPAROSCOPY+		IVF / ICSI STATISTICS	
LAVH+BSO	01	ADHESIOLYSIS	01	TOTAL NO OF CASES	182
SACRO-CERVICOPEXY	02	MINOR PROCEDURE		FROZEN ET	74
LAP COLPOPEXY	01	SUCTION EVACUATION	12	IVF CONCEPTION RATE	34.85%
PCO PUNCTURING	25	CERVICAL ENCIRCLAGE	35	CONCEPTION RATE AFTER	
LAP MYOMECTOMY+		MIRENA INSERTION	04	FROZEN ET	42.2%
APPENDICECTOMY+ADHESIOLYSIS	01				

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FOR DETAILS CONTACT :

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FERTILITY RESEARCH AND GYNAEC CENTRE

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Our Team

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Chief Infertility Specialist &
Laparoscopy Surgeon

Dr. ANITHA M. MBBS, DNB
IVF Co-ordinator

Dr. NIRANJANA JAYAKRISHNAN
MD, (OBG), DNB
Consultant in Reproductive Medicine

SENIOR CONSULTANT OBS & GYN

Dr. BINDU BALAKRISHNAN MD, DGO
Dr. DEEPTI B. MS, DGO, MRCOG

CONSULTANT IN OBS & GYN

Dr. ASHWIN JAYAKRISHNAN MD (OBG) DNB
Dr. REVATHY PANICKER MBBS, DGO
Dr. ABHILASH ANTONY V. MBBS, DGO
Dr. DANU MS (OBG)
Dr. SIJA CHANDRAN MS
Dr. AISWARYA MS

ANAESTHESIOLOGY

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Chief Anaesthesiologist
Dr. APARNA SUDARSAN MBBS, DA, DNB
Consultant Anaesthesiologist
Dr. RATEESH REGHUNATH MD
Consultant Anaesthesiologist

PAEDIATRICS

Dr. MADHU K.V. MD, DCH
Dr. SUNIL KUMAR K.B. MBBS, DCH

RADIOLOGY/SONOLOGY

Dr. R.N.RAMESH DMRD

EMBRYOLOGIST

Dr. JAYAPRAKASH D. Phd

PATHOLOGIST

Dr. JAYASREE P.V. MD

UROLOGIST

Dr. VINOD K.V. MS, MCH (URO)

CONSULTANT SURGEON

Dr. SUBHASH R. MS. MCH



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