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NEWS LETTER

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From the Editors Desk.....

Greetings from Trivandrum

Whole exome sequencing in the anomalous fetus with nondiagnostic routine genetic testing

Approximately 3 percent of live births are affected by a major structural malformation .

Whole exome sequencing (WES) is emerging as an option for evaluating an anomalous fetus with nondiagnostic routine genetic testing (microarray). Two large prospective cohort studies of WES in this setting identified a diagnostic genetic variant in approximately 10 percent of fetuses overall and in 15 to 20 percent of those with two or more anomalies Given the complexities involved in this type of testing, the decision to perform WES should be made in consultation with a provider specializing in genetic testing.

As the landscape of genetic testing rapidly evolves, clinicians are often left with many questions about the most appropriate testing methods to use for their patients

The finding of a fetal structural anomaly increases the possibility of a chromosome abnormality or genetic molecular defect and should prompt further evaluation into genetic etiologies.

In several retrospective series of prenatally detected anomalies on ultrasound that prompted genetic studies, an isolated fetal anomaly was associated with fetal chromosome abnormalities in 2 to 18 percent of cases; multiple anomalies were associated with a fetal chromosome abnormality in 13 to 35 percent of cases

The goal is to determine whether there is a genetic etiology of the abnormalities that would enable well-informed counseling about prognosis, reproductive options, obstetric and pediatric management, and recurrence risks.

Pretest counseling by a provider familiar with the suspected fetal diagnoses and with genetic testing options is necessary for patients to make informed decisions. Alternatives to prenatal diagnostic testing include prenatal screening and postnatal diagnostic testing.

With new ideas to ponder upon I welcome you all to Advances 2019 the 20th Academic extravaganza on August 9th-11th 2019 at Kovalam KTDC Samudra.

Dr. K. Jayakrishnan

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Dr ASHWIN JAYAKRISHNAN

ROLE OF INTRA OPERATIVE USG IN LAPAROSCOPIC *myomectomy*

One of the difficulties of laparoscopic myomectomy is locating the deeper and smaller myomas especially those closer to the endometrium (type 3) according to the International Federation of Gynecology and Obstetrics (FIGO) classification.

Laparoscopic myomectomy carries increased risk of residual myomas because unlike laparotomy, the uterus cannot be palpated to locate very small myomas. Postoperative recurrence may be either due to enlarged residual myomas or newly formed myomas.

There are studies that show increased risk of recurrence (16.7-51.4 %) after 5 years of laparoscopic myomectomy.This increases the chance of reoperation and decreases the chances of symptom relief after the surgery. Several studies have shown that large myomas are associated with significant reduction in pregnancy rate after IVF.

Khalaf et al. showed that smaller myomas (?5 cm) not encroaching endometrial cavity were found to significantly reduce ongoing pregnancy rate at each cycle of IVF by 40 %; similarly, Stovall et al. concluded that implantation and pregnancy rates were one half that of matched controls .

Technical problems in identifying deeper myomas lead to misplaced incision causing more blood loss, myometrial integrity, and increased operating time. Good preoperative myoma mapping is helpful, but it is difficult to locate deeper and smaller intramural myomas intraoperativelythis, can be tackled by using intraoperative transvaginal ultrasonography (TVS) with a simultaneous laparoscopic view to locate deep-seated and smaller myomas and to enucleate additional residual myomas.

The role of intraoperative ultrasound in gynecology is in its infancy, with anecdotal experience and literature involving predominantly case reports.

Intraoperative ultrasound is helpful in laparoscopic myomectomy, particularly when the uterine contour is normal. It is also useful in defining pelvic anatomy in cases of complex reproductive procedures. Evaluation and assessment of the value of intraoperative ultrasound in gynecological procedures is essentially non-existent.

Intraoperative ultrasound reduces recurrence and re-operation rates after hysteroscopy by facilitating more-complete resection of uterine myomas.

Intraoperative ultrasound appears to be a safe and valuable tool for the gynecologic surgeon. Ultrasound improves visualization of anatomy, reduces complication and re-operation rates, and facilitates completion of more cases via less-invasive endoscopic approaches.

Also to quote it enables in appropriately placing hysterotomy incision and successful reconstruction of uterus, especially in myomas of size 2cm or lesser than that .In patients with multiple myomas, an experienced laparoscopic surgeon can remove all visible myomas but identification of deeper and smaller myomas are difficult due to lack of tactile perception. The better way to overcome this limitation is the use of intraoperative ultrasonography.

Dr DANU C

VOMITING IN PREGNANCY AND ITS DANGER

This is a case of a 25y old P1L1A1 with intractable nausea and vomiting of pregnancy (NVP) and a bad obstetric history. She is a k/c/o PCOS and hypothyroidism. She conceived twice after ovulation induction. During her first pregnancy she had 4 admissions for threatened miscarriage. She had a SCH~4cm at 13weeks. From 9weeks she had 5 admissions for hyperemesis gravidarum. Each admission was for 4-7days. She was treated with antiemetics (ondansetron, promethazine, metoclopramide), antacid (H2 receptor blocker)and IV fluids. Her urine acetone on admission usually was 3+ or 2+. She was started on thromboprophylaxis. Her weight reduced from 68kg(pre pregnancy) to 61kg(at 13w), ie; a 11% reduction by the end of first trimester. At 19w she got admitted for vomiting- USS showed fetal demise at 17w. she expelled a macerated fetus with no external anomalies. Post abortion- endometrial thickness in scan was 12mm. Patient refused to have an autopsy done. TORCH screening, APLA and Thyroid Abs were negative. After a month she came with c/o persistent bleeding. UPT-negative. She was started on MPAx 21 days. After 2w of MPA there was no much reduction in bleeding. Hb-13g/dL, ? HCG-0.5mIU/mL. She underwent Suction evacuation. After the procedure bleeding stopped & she resumed her periods.

During her second pregnancy, she had 6 admissions for bleeding PV. From 9weeks she had 6 admissions for hyperemesis until 20w. She was treated with antiemetics, antacids, thiamine and IVFs. But there was no much relief. She had persistent vomiting, ketonuria and weight loss. Her LFT, RFT &S.electrolytes were within normal range. She was given hydrocortisone, to which she responded. By 13w she had 5% reduction in weight. She was in a depressive state, Psychological support and antidepressant was started. She had prophylactic cerclage at 16w in view shortened cervix. By 20w her weight reduced by 8kg. She was put on hydrocortisone 100mg iv BD x 2wk. Insulin was needed at low dose for steroid induced diabetes. By 24w, her vomiting was controlled with oral antiemetics. She started gaining weight. By 34 weeks, her weight increased from 69kg(pre pregnancy) to 87kg. She delivered a term baby of 3kg at 38weeks by LSCS.

DISCUSSION: Hyperemesis gravidarum (HG) can be diagnosed when there is protracted NVP with the triad of more than 5% prepregnancy weight loss, dehydration and electrolyte imbalance.NVP affects up to 80% of pregnant women. HG is the severe form of NVP, which affects about 0.3-3.6% of pregnant women.Pregnancy-Unique Quantification of Emesis (PUQE) score can be used to classify the severity of NVP. There are safety and efficacy data for first-line antiemetics such as antihistamines (H1 receptor antagonists) and phenothiazines and they should be prescribed when required for NVP and HG. Combinations of different drugs should be used in women who do not respond to a single antiemetic. For women with persistent or severe HG,intravenous, rectal, subcutaneous or intramuscular route may be necessary and more effective than an oral regimen. Metoclopramide, Domperidoneand Ondansetron are used as second-line therapy. Corticosteroids should be reserved for cases where standard therapies have failed. The suggested dose is intravenous hydrocortisone 100 mg twice daily, and once clinical improvement occurs convert to oral prednisolone 40-50 mg daily, with the dose gradually tapered until the lowest maintenance dose that controls the symptoms is reached. Pyridoxine and Diazepam are not recommended for the management of NVP or HG.

Hack that cyst "Clean and Clear"!

Dr REVATHY PANICKER

17 year old Miss X was referredto KJK hospital with c/o lower abdominal pain of 2 days duration, Pain was not associated with menstruation, urinary symptoms, altered bowel habits. Patient gave a history of irregularcycles. And the pain she presented was relived with analgesics. She was investigated at a local hospital and scan done there showed a large ovarian cyst of size 9 cm on the right side. She was referred to our center for laparoscopic management. We proceeded with a per abdomen examination and thus could feel a vague mass filling the hypochondrium, In view of her symptoms we proceeded with abdominal USG and blood investigations which also included the tumor marker tests. Her USG was suggestive of a large ovarian cyst of size 9 cm with mixed echogenic shadows suggestive of a dermoidcyst. Her tumormarker resultswere found to be normal. Owing to the large size we did an MRI pelvis which suggested the cyst to be dermoid and also hinted that the ovary appearedtorsed. In view of these findings we proceeded doing Operative laparoscopy after obtaining anesthesia fitness. We also had taken consent for ovariotomy (SOS) in view of the large size and with the risk of suspected torsion.

During laparoscopy we noticed that the findings were at par with the MRI picture. There was a large 9 cm dermoid cyst. Dermoid was seen torsed once around the pedicle, However since the ovary appeared healthy and non gangrenous we proceeded with ovarian cystectomy within an endobag, carefully avoiding spillage. Later ovary was reformed using 3 x o monocryl. The counter part ovary and tube appearednormal. The cyst and contents were taken out through the endobag carefully avoiding spillage. Peritoneal lavage was done at the end of procedure.

Discussion

Dermoid cysts are the most common ovarian tumours generally occurring in the second and third decade of life. Giant ones (> 15 cm) are very rare and can be symptomatic. Because of the associated symptoms such as mass effect and the doubt of ovarian malignancy, they usually require resection (mostly as oophorectomy). Most women with dermoid cysts are asymptomatic. If present, symptoms depend upon the size of the mass. Torsion is common and rupture of dermoid cysts with spillage of sebaceous material into the abdominal cavity can occur, but is uncommon.

Mature cystic teratomas (MCTs) are the most common ovarian neoplastic lesions found in adolescents. MCTs are usually asymptomatic and are often discovered incidentally on exam or imaging. The recurrence rate of MCTs following cystectomy is 3-4% and incidence of malignant transformation is estimated to be 0.17-2%.

Imaging modalities are important for the diagnosis of ovarian cysts. Ultrasound allows reasonably accurate non invasive diagnosis in many cases. The reported sensitivity is 85%. The sensitivity of MRI is nearly 100% in ovarian dermoidmass. Removal of the dermoid cyst is usually the treatment of choice. This can be done by laparotomy or laparoscopy. The advantages of laparoscopic management in ovarian cysts include lesserpostoperative pain, shorter hospitalisation and recovery periods, and better cosmetic consequences, as compared to laparotomy. Patient should also be counseled about the potential risk of recurrence and the need for follow up post surgery.

The management of MCTs in the adolescent population poses unique challenges given the potential impact on a young women's' sexual development and future fertility. A fine balance exists between complete excision of symptomatic lesions, prevention of negative sequel like ovarian torsion, and overly aggressive intervention.

Thus to conclude, Laparoscopic surgery seems to be appropriate and secure for therapeutic management of huge benign ovarian cysts. Because laparoscopic approach supplies both conservative treatment and excellent cosmetic results in terms of skin as compared to midline abdominal incision, it should be chosen especially for young and nulliparous women, even if her cyst is huge. Using an endobagpotentially reduces the risk of spillage and thus making the surgical field clean and secure .

Normal saline with additional potassium chloride in each bag, with administration guided by daily monitoring of electrolytes, is the most appropriate intravenous hydration. Dextrose infusions are not appropriate unless the serum sodium levels are normal and thiamine has been administered. Dextrose-containing solutions can precipitate Wernicke's encephalopathy in thiamine-deficient states; hence, each day intravenous dextrose is administered, high (e.g. 100 mg) doses of parenteral thiamine should be given to prevent Wernicke's encephalopathy.It is a potentially fatal but reversible medical emergency. The overall pregnancy loss rate including intrauterine deaths and terminations was 48%. Thereforethiamine supplementation (either oral or intravenous) should be given to all women admitted with prolonged vomiting, especially before administration of dextrose or parenteral nutrition.Urea and serum electrolyte levels should be checked daily in women requiring intravenous fluids. Histamine H2 receptor antagonists or proton pump inhibitors may be used for women developing gastro-oesophageal reflux disease, oesophagitis or gastritis. Women admitted with HG should be offered thromboprophylaxis with low-molecular-weight heparin unless there are specific contraindications such as active bleeding. Thromboprophylaxis can be discontinued upon discharge. When all other medical therapies have failed, enteral or parenteral treatment should be considered with a multidisciplinary approach. Rest, particularly napping, is reported by women to relieve symptoms. Women should be referred to sources of psychosocial support. USA reports that 10% of pregnancies complicated by HG end in termination. Treatment options of antiemetics, corticosteroids, enteral and parenteral feeding, and correction of electrolyte or metabolic disturbances should be considered before deciding that the only option is termination of the pregnancy.

Women with severe NVP or HG who have continued symptoms into the late second or the third trimester should be offered serial scans to monitor fetal growth. When women with severe HG are considered, it has been shown that those requiring repeated admissions have an 18% incidence of small-for-gestational-age babies and significantly lower birthweights than babies of women with HG and single admissions.

MULTIPLE FIBROID UTERUS IN AN UNMARRIED WOMAN

Dr AISHWARYA

Mrs X, 36 year old, unmarried, reported to our hospital with complaints of heavy bleeding per vagina during menses since six to eight months. She also had complaints of mass per abdomen. She was diagnosed to have multiple fibroid uterus at another hospital two years back, and was advised to undergo hysterectomy.

Her menstrual cycles were regular with bleeding lasting for upto seven days, with increased flow for the first three days. She gave history of passage of clots too. There was no history of any other medical or surgical illness in the past. Family history was also not significant.

On examination per abdomen, a mass corresponding to 26 to 28 weeks gravid uterus was felt. Ultrasound at our hospital showed enlarged uterus with multiple fibroids measuring 6.4 cm, 7.3 cm, 9 cm and 6.8 cm, with minimal pelvicalyceal dilatation seen in the right kidney. The finding on ultrasound were confirmed by MRI Pelvis.

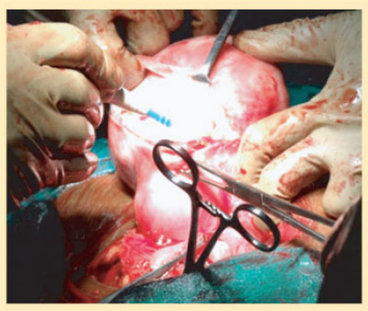
She underwent open myomectomy at our hospital in view of large size of the uterus.

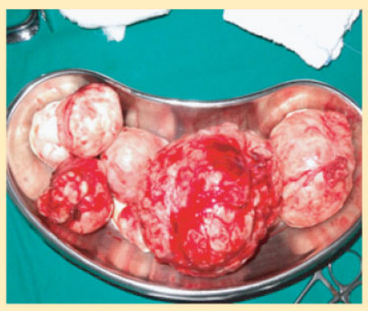
Intraoperative findings were consistent with the ultrasoundand MRI reports. Uterus was found enlarged to 28 weeks size with multiple fibroids. Sequential myomectomy was done, and the specimen were sent for histopathological examination. Post operative period was uneventful. Patient was discharged on the fourth post operative day and reviewed again after 10 days. Histopathology report showed multiple leiomyoma.

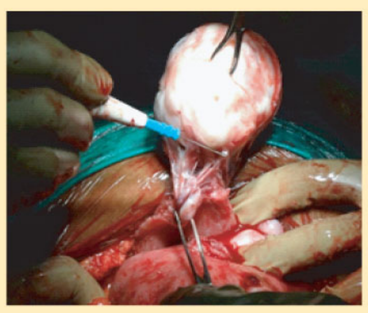
DISCUSSION :

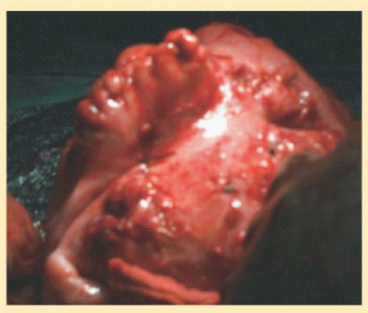
Uterine fibroids (Leiomyomas) are the most common benign tumors of the uterus in women of child bearing age. They occur in 20 to 25% of women over the age of 30 years.

Indications of myomectomy : Indications include infertility and symptoms such asmenorrhagia, recurrent pregnancy loss, dysmenorrhea, lower abdominal swelling and urinary frequency secondary to fibroids. In this era of ART, in infertile patients before IVF, it is important to remove the large fibroids and also the smaller fibroids which are near the endometrium or indenting into the endometrium for a better success rate.









Due to the increasing knowledge of the technique and due to lesser post operative pain and less intraoperative blood loss, laparoscopy is being preferred over laparotomy by many surgeons, only when the size of the uterus is less than 16 weeks. In cases where the uterine size is estimated to be more than 16 weeks, open myomectomy is the procedure of choice owing to its lesser operative time. Thus, open myomectomy should be preferred in large sized uterus, irrespective of the age or indication.

CONCLUSION :

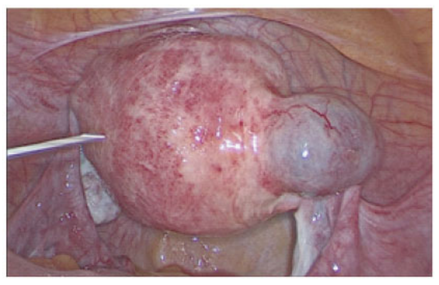
Even when uterus is enlarged with multiple fibroids, in an unmarried woman, the procedure of choice should be myomectomy and not hysterectomy. By adhering to principles in achieving less intraoperative blood loss and ensuring good hemostasis, myomectomy is possible in almost all patients where fertility has to be preserved, despite the initial size or number of fibroids.

Dr SIJA CHANDRAN L.J.

A CASE OF INTERSTITIAL ECTOPIC PREGNANCY

33 yr old G3A2 with history of 1 MTP at 19 weeks in v/o fetal ascites and 1 missed abortion at 6 weeks, now conceived spontaneously, presented with abdominal pain at 6 weeks gestation, Transvaginal ultrasound done was suggestive of a right interstitial ectopic pregnancy.

On clinical examination, her vitals were stable. B-Hcg was 4930Miu/ml. Laparoscopic confirmation of interstitial pregnancy was done, Vasopressin injected over the uterine serosa. Proceeded with excision of the right cornual ectopic. Hydrodissection done. Products of conception retrieved from its bed. Edges of the wound was approximated with barbed sutures. Chromotubation done showed patent left tube. Patient was discharged on POD-2.B-hcg follow up was done and it dropped to <5Miu/ML in 2 weeks. HPR-was ectopic fallopian tube.



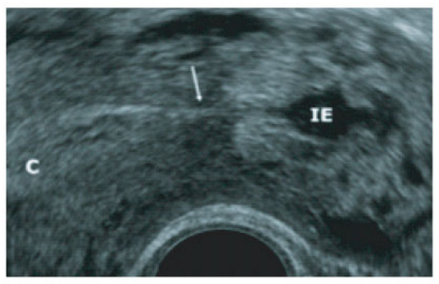


Figure 1: Right interstitial ectopic, Figure 2:TVS scan showing interstitial ectopic with interstitial line sign(arrow) joining the endometrial cavity

DISCUSSION :

Interstitial pregnancy is a rare but dangerous type of pregnancy. The diagnosis and treatment are challenging and frequently constitute a medical emergency. Interstitial pregnancy occurs when the ectopic pregnancy implants in the interstitial part of the fallopian tube. The reported incidence varies between 1.0% and 6.3% of ectopic pregnancies. The interstitial part of the fallopian tube is about 1-2 cm in length and traverses the muscular myometrium of the uterine wall, opening via the tubal ostium into the uterine cavity.

Initially the two terms 'interstitial' and 'cornual' pregnancy have been used synonymously by some authors, but now most prefer the term cornual pregnancy for implantation in the congenitally abnormal uterus.

Ultrasound criteria have been described for the diagnosis of interstitial pregnancy. These include:

1. Empty uterine cavity.

2. Products of conception/gestational sac located laterally in the interstitial (intramural) part of the tube and surrounded by less than 5 mm of myometrium in all imaging planes.

3. The 'interstitial line sign', which is a thin echogenic line extending from the central uterine cavity echo to the periphery of the interstitial sac. The 'interstitial line sign' has been shown to have a sensitivity of 80% and a specificity of 98% for the diagnosis of interstitial ectopic pregnancy.

Sonographic findings in two-dimension can be further confirmed using three-dimensional ultrasound, where available, to avoid misdiagnosis with early intrauterine or angular (implantation in the lateral angles of the uterine cavity) pregnancy. Supplementation with MRI can also be helpful in the diagnosis of interstitial pregnancy.

At presentation, based on clinical symptoms and ultrasound scan, if there is suspicion of interstitial pregnancy, a single serum b-hCG should be carried out. This can be useful in deciding management options, such as surgical, medical or expectant treatment. The overall decision regarding management options depends upon clinical presentation, size of the interstitial pregnancy, presence of fetal cardiac activity and the serum b-hCG level.

Surgical management by laparoscopic cornual resection or salpingotomy is an effective option. Alternative surgical techniques include hysteroscopic resection under laparoscopic or ultrasound guidance. There is insuficient evidence on safety and complications in future pregnancies to recommend other nonsurgical methods.

Cornual pregnancy poses a significant diagnostic and therapeutic challenge and carries a greater maternal mortality risk than tubal pregnancy. Major concerns regarding future pregnancy are rupture of the interstitial portion of the tube (uterine rupture) and recurrence of interstitial pregnancy. Appropriate individual counselling is needed regarding risks of future pregnancy and mode of delivery.

IMPERFORATE HYMEN WITH MULLERIAN ANOMALY PRESENTING WITH MASSIVE HEMATOMETRA AND HEMATOCOLPOS: A CASE REPORT

Dr Abhilash Antony V

Primary amenorrhea is the lack of menses by age 15 with secondary sex characteristics, or at 13 with absence of secondary sex characteristics. When evaluating a patient with primary amenorrhea, the pathophysiology can be attributed to numerous sources. Chromosomal abnormalities associated with gonadal dysgenesis are the most common, accounting for 40% of cases. It is then followed by hypothalamic hypogonadism at 30%. A transverse vaginal septum/imperforate hymen represents only 3% - 5% of cases.

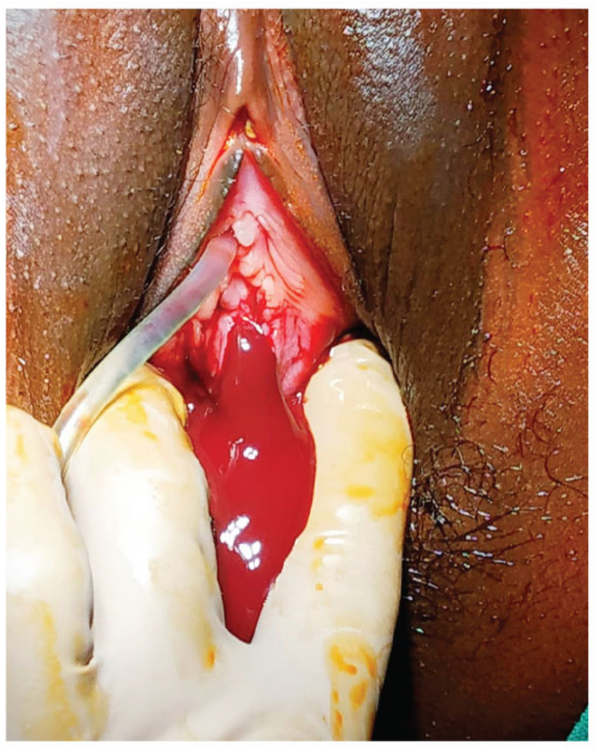
Detailed history and physical examination including evidence of psychogenic dysfunction or emotional stress,family hIstory of apparent genetic anomalies with a focus on nutritional status,abnormal growth and development, the presence of a normal reproductive tract and examination is followed by step by step investigations, following exclusion of pregnancy, starting with serum TSH, Prolactin levels and a progesterone challenge as well as the evidence of a CNS disease. If galactorrhea accompanies amenorrhea, then sellar imaging is included, see fig1 to see how to approach a patient of amenorrhea. Detailed history and physical examination including evidence of psychogenic dysfunction or emotional stress,family hIstory of apparent genetic anomalies with a focus on nutritional status, abnormal growth and development, the presence of a normal reproductive tract and examination is followed by step by step investigations, following exclusion of pregnancy, starting with serum TSH, Prolactin levels and a progesterone challenge as well as the evidence of a CNS disease. If galactorrhea accompanies amenorrhea, then sellar imaging is included, see fig1 to see how to approach a patient of amenorrhea. Detailed history and physical examination including evidence of psychogenic dysfunction or emotional stress, family hIstory of apparent genetic anomalies with a focus on nutritional status, abnormal growth and development, the presence of a normal reproductive tract and examination is followed by step by step investigations,following exclusion of pregnancy, starting with serum TSH, Prolactin levels and a progesterone challenge as well as the evidence of a CNS disease.If galactorrhea accompanies amenorrhea, then sellar imaging is included,see fig1 to see how to approach a patient of amenorrhea.Imperforate hymen is a rare congenital malformation of the vagina. The incidence rates vary from 1 in 1000 to 1 in 10,000 females .It occurs when the sinovaginal bulb fails to canalize with the rest of the vagina. The occurrence is sporadic, and typically presents at puberty with delayed menarche, cyclic lower abdominal pain and mass, and bulging vaginal membrane at the vaginal introitus that are secondary to the accumulation of menstrual blood as hematocolpos and hematometra above the imperforate hymen.

The diagnosis of an imperforate hymen can be made by the absence of the track of mucus at the posterior commissure of the labia majora or by visualization of the bulging hymen after puberty. Transabdominal ultrasound can also assist in confirming the diagnosis of imperforate hymen due to the accumulation of hydrocolpos. The differential diagnoses of imperforate hymen include vaginal septum, vaginal agenesis, vaginal cyst, ectopic ureter with ureterocele, hymenal cyst and periurethral cyst. The definite management of imperforate hymen is surgical excision of the hymen from the base (hymenecotomy) and evacuation of the accumulated menstrual blood from the vagina and the uterus. Surgery is always indicated when imperforate hymen becomes symptomatic we report the case of an imperforate hymen with Mullerian anomaly who presented primary amenorrhea with massive hematocolpos and hematometra.

CASE REPORT

15-year-old girl who was referred to our institution with history of cyclic abdominal pain, delayed menarche. Her birth and development were normal and her scholastic performance was good. On examination, her height was 154 cm, weight 40 kg and BMI 16.9 kg/ m2. Her blood pressure was normal. All the distal pulses were well felt. Systemic examination did not reveal any abnormality. Genital examination revealed Tanner stage III breast development and Tanner stage III pubic hair. Perineal examination revealed a bulging pinkish imperforate hymen.

Transabdominal ultrasound revealed mullerian anomaly – uterine didelphis with large fluid collection with in the cavity. The kidneys, ureters, uterus and ovaries were normal. Hence MRI was advised to confirm the findings. Serum biochemistry within normal limits. The parents were counselled on the surgical treatment options and the possibility of loss of virginity during the surgery. They gave consent to the surgery. She had hymenotomy under general anesthesia. Over 1000 ml of coffee-coloured menstrual blood was evacuated. The urethra was catheterized to avoid its iatrogenic damage before about 1.5 cm cruciate incisions were made on the central portion of the membrane. Minimal trimming of the edges of the hymen was done to prevent defloration. Vicryl 2-0 sutures were applied at four points on the edges of the hymen. The urethral catheter was removed after the procedure in the theatre. Her postoperative recovery was uneventful.



She was discharged on the third postoperative day, and was to be seen in the gynaecological clinic in six weeks.

DISCUSSION

Early diagnosis and timed surgical treatment of an imperforate hymen are important to prevent the complications associated with the delayed treatment after puberty. The diagnosis is usually delayed till after puberty when it presents with its complications like delayed menarche, cyclic lower abdominal pain and mass, and bulging vaginal membrane.

Imperforate hymen is a rare congenital malformation that closes the vagina outflow tract causing accumulation of mucus, fluid and menstrual blood. High index of suspicion is required for early diagnosis and treatment before the complications like massive hematometra and hematocolpos occur.

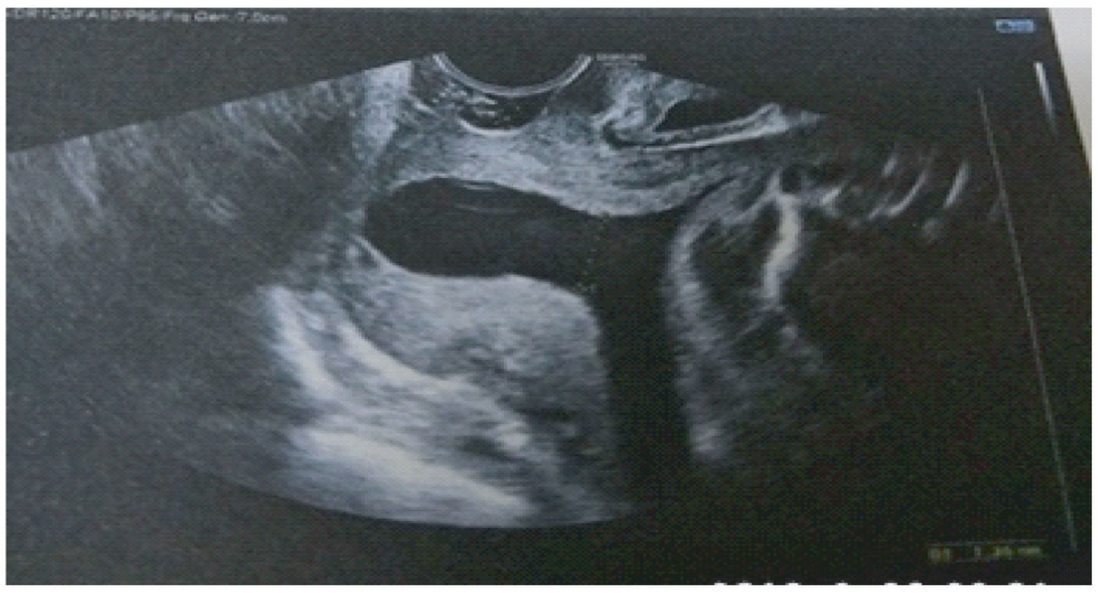
Differential diagnosis of imperforate hymen includes other obstructive reproductive tract anomalies like lower transverse vaginal septum. The associated vulvar distension, however, uniquely suggests imperforate hymen. Imperforate hymen is usually a clinical diagnosis which can be confirmed by ultrasonography. The treatment includes surgical hymenotomy under anaesthesia following catheterisation with or without an indwelling Foleys catheter to re-establish vaginal outflow. An X shaped incision at 2-, 4-, 8-, and 10-o'clock positions is used which has the advantage of decrease risk of injury to the urethra. The quadrants of the hymen are then excised, and the mucosal margins are approximated with fine delayed-absorbable suture.Pressure on the uterus in order to expel more blood is discouraged as it can lead to retrograde flow through the tubes causing endometriosis and tubal adhesions. Needle aspiration of mucocolpos or hematocolpos should be avoided as in can lead to infection and pyocolpos formation.The outcome of surgical hymenotomy is good and the recurrences are rare.

Treatment usually involves surgery in the form of excision of the vaginal septum which helps in relieving obstruction. Surgical intervention also decreases the chances of pelvic endometriosis due to retrograde menstrual seeding. About 87% of patients go on to have a successful pregnancy; however, 23% of patients carry the risk of subsequent abortion

CASE REPORT

Dr ABIRAMI
Fellow in Reproductive Medicine

A 28 year old primigravida was admitted to our hospital at 26 weeks gestation. It was a spontaneous conception after five years of married life. Was a k/c/o hypothyroidism on medications. She had an uneventful first trimester, both First trimester screening (usg +Double marker) and her anomaly scan were within normal limits. She had no symptoms and was incidentally diagnosed on routine ultrasound with cervical incompetence.



Vaginal examination revealed the cervix was almost fully taken upthough no membranes were seen bulging into the vagina. She remained apyrexial with no evidence of infection in a mid stream specimen of urine or a high vaginal swab. The following day, TVS was repeated which showed funneling and shortening of cervix. So, a rescue cervical cerclage was performed. The membranes were gently pushed back and held in place with a Foley catheter with 30ml water in the balloon, and the cervix was found to be fully taken up. She was put in steep trendlenberg position and bladder filled up so that the membranes were pushed up. The cervical edges were identifed and grasped and a McDonald suture inserted using Mersilene tape.

Post-operatively she completed her course of antibiotics and remained clinically well. Serial transvaginal scans of the cervix were performed following the cervical cerclage which showed a closed internal os and good length of cervix. She was discharged from hospital at 32 weeks of gestation with nil complaints.

DISCUSSION

Cervical incompetence is defined as the inability to support a pregnancy to term due to a functional or structural defect of the cervix. According to ACOG practice bulletin no 142, the term cervical insufficiency is used to describe the inability of the uterine cervix to retain a pregnancy in the absence of the signs and symptoms of clinical contractions, or labor, or both in the second trimester.

Diagnosis : The diagnosis of cervical insufficiency is challenging because of a lack of objective findings and clear diagnostic criteria.It is based on a history of painless cervical dilation with subsequent expulsion of the pregnancy in the second trimester, typically before 24 weeks of gestation, without contractions or labor and in the absence of other clear pathology (eg, bleeding, infection, ruptured membranes).

Recently, attempts have been made to use assessment of cervical length in the second trimester and the identification of cervical shortening as an ultrasonographic diagnostic marker of cervical insufficiency. However, short cervical length has been shown to be a marker of preterm birth in general rather than a specific marker of cervical insufficiency. Preterm birth is the leading cause of perinatal morbidity with survival rates estimated at 54% at 25 weeks of gestation, 38% at 24 weeks of gestation and 23% at 23 weeks of gestation. Cervical insufficiency may be present in up to one percent of the obstetric populations.

Management of cervical insufficiency:

Classic cervical incompetence is treated surgically with cerclage which reinforces a weak cervix by a purse string suture.

Indications for cervical cerclage insertion

" Based on previous history or a H/o PCO

" Short cervix on ultrasound

" Dilatation of cervix in the absence of uterine contractions - Rescue encerclage

Surgical encerclage can be divided into prophylactic cerclage and therapeutic cerclage.

The various procedures are: McDonald cerclage, Modified shirodhkar cerclage and Prophylactic trans abdominal cerclage (laparoscopically or open surgical technique.) Emergency cervical cerclage is placement of a cerclage in the setting of significant cervical dilatation and/or effacement prior to 28 weeks gestation and in the absence of labor.

Procedure: Replacement of the prolapsed amniotic sac back into the uterus is usually needed to aid suture placement. This is done by tilting the operating table in the head down position along with filling the bladder with 600 ml of saline through an indwelling Foley's catheter. This may reduce the prolapsing membranes, which also helps to carry the cervix cephalad away from the operating field. Another method is to place a Foley's catheter through the cervix and inflating the 30ml balloon to deflect the amniotic sac cephalad. Cerclage is usually done by Mc Donald technique and the balloon is deflated gradually as the cerclage suture is tightened around the catheter

Risks: The risks include sepsis, premature rupture of membranes, premature labour, cervical dystocia (due to cervical scarring), cervical laceration at delivery (up to 11%) and haemorrhage. Membrane rupture during suture placement or within the first 48 hours following surgery is considered by some to be an indication for cerclage removal because of the likelihood of serious foetal or maternal infection.

Outcome: Cervical cerclage in advanced cervical dilatation with bulging membranes in the second trimester is controversial. The outcome of these pregnancies, even with cervical cerclage, is frequently poor, but without cerclage miscarriageis almost always inevitable. Reported survival rates following emergency cerclage vary from 12.5% to 63% in women with cervical dilatation > 3cm. Despite its overall poor prognosis, a successful outcome sometimes occurs. Predictors of poor outcome were prolapsed membranes, evidence of intra-amniotic or systemic infection, symptomatic presentation, cervical dilatation greater than 3 cm, or cerclage after 22 weeks.

Conclusion: The current data suggest that emergency cerclage is associated with a longer latency period and, most often, with better pregnancy outcomes when compared with only bed rest. Many of the predictors of adverse outcomes appear to be associated with evidence of inflammation or infection. With good neonatal ICU back up most of the pregnancies can be salvaged with minimal morbidity to the neonates.

Pruritic urticarial papules and plaques of Pregnancy - PUPP

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Fellow in Reproductive Medicine

A 30 year old G3A2 IUI conception APLA negative, at 33 period of gestation developed itching and red rashes on either side of abdomen for two days. The itching was of gradual in onset and there was no itching on palms and soles.. LFT, bile acids and RFT were done and were with in normal range, and hence cholestasis of pregnancy was ruled out and a provisional diagnosis of PUPP was made and patient counselled that theses rashes have no adverse effect on both mother and fetus. Patient was put on antihistamines and emollients. The rashes kept on increasing and in a week's time spread to arms and legs so Dermatology consultation was done in view of PUPP. Patient was started on oral prednisolone at a high dose and gradually tapered down in 3 week time. Rashes and itching reduced. Due to the oral prednisolone, bloodsugars were elevated. Patient was put on insulin and correction of sugar was done.

At 38 weeks, induction of a labour was done with two dose PGE1 and pitocin acceleration patient delivered a live female baby.

Discussion

Pruritic urticarial papules and plaques of pregnancy (PUPPP), known in United Kingdom as polymorphic eruption of pregnancy (PEP), is a chronic hives-like rash that strikes some women during pregnancy. Although extremely annoying for its sufferers (because of the itch) especially at night, it presents no long-term risk for either the mother or unborn child. PUPPP frequently begins on the abdomen and spreads to the legs, feet, arms, chest, and neck.PUPPP rash occurs in about 1 in every 150 pregnancies.

Papules and plaques usually first appear on the abdomen (although not on the umbilicus/belly button) and often spread to the legs, chest, underarms, etc. The face is usually also spared and does not seem to become affected.

Skin distension (stretching) is thought to be a possible trigger for PUPPP as it most commonly affects primigravida, women with large fundal measurements and/or those who are carrying large babies or multiples,and Caucasian. The papules and plaques often first appear within stretch marks.

Certain studies reveal that this condition is more frequent in women carrying male baby, although no formal research has been conducted. Statistics cite that 70% of PUPPP sufferers deliver male baby.

Cause

The cause of the condition is generally unknown. This skin condition occurs mostly in first pregnancies (primigravida), in the third trimester and is more likely with multiple pregnancies (more so with triplets than twins or singletons).

Other than additional associations with hypertension and induction of labour, there are no observed difference in the outcome of the pregnancy for mothers or babies.

Treatment

Soothing mild cases during pregnancy consists mainly of the application of topical moisturising creams or aqueous/emollient ointments. Class I or II corticosteroid creams and ointments are used in more aggressive cases, and oral (systemic) corticosteroids can be used to treat very severe cases-although the benefits of a pregnant woman's ingesting high-potency corticosteroids must be weighed carefully against possible (and mostly unknown) risks to the developing fetus or fetuses. Rarely, in unusually persistent and distressing cases, some women have had their labor induced as soon as they are considered to be at term (37 weeks).

Antihistamine tablets may be prescribed to provide relief from the itch, although they are generally considered much less effective than corticosteroid treatments, and may act as little more than a sleep aid.

Pine tar soap/body wash can bring relief as can keeping the skin chilled such as through a cold shower or iced cloths.

In the majority of cases, PUPPP resolves spontaneously within a week of delivery. However, a few women continue to experience symptoms long into the postpartum period.

When a patient presents with Rashes and Pruritis in third trimester of pregnancy. The following could be some of the possible differential diagnosis :-

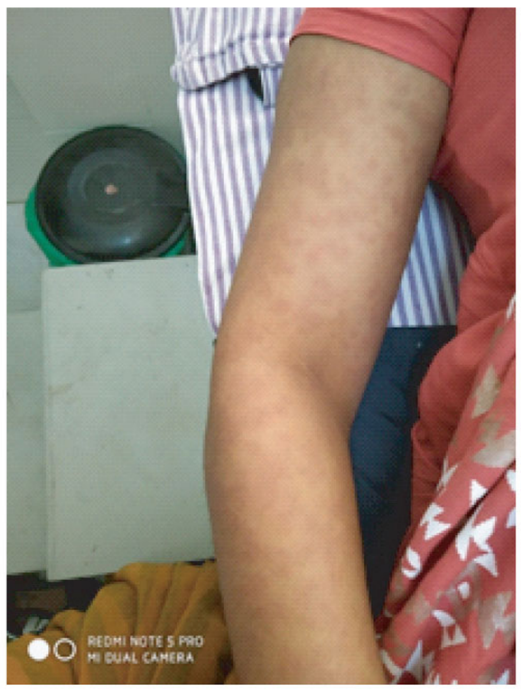
PUPP

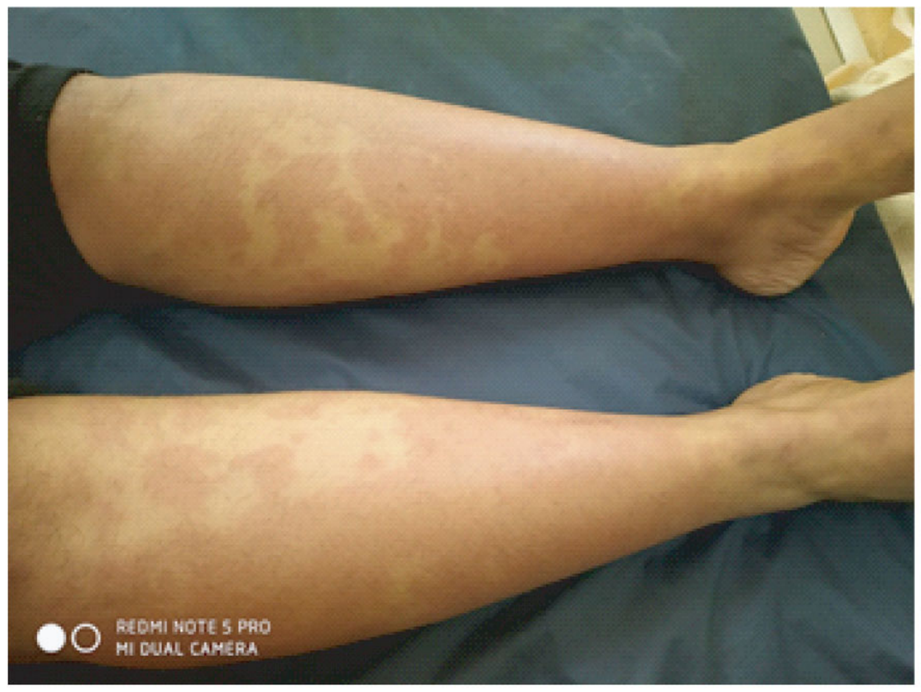
Intrahepatic cholestasis of pregnancy

Pemphigoid gestationis

Atopic eruption of pregnancy

Pustular psoriasis of pregnancy, It is quite important that we diagnose the issue rightly as it aids in proper management of the ongoing pregnancy.





STATISTICS

STATISTICS JAN – MAR 2019

TOTAL NO OF CASES	264
TOTAL LAPAROSCOPY	57
DIAGNOSTIC LAPAROSCOPY	10
OPERATIVE LAPAROSCOPY	47
TOTAL HYSTEROSCOPY	51
DIAGNOSTIC HYSTEROSCOPY	45
OPERATIVE HYSTEROSCOPY	6

OBSTETRICS

VAGINAL DELIVERIES	25
TOTAL LSCS	72
ELECTIVE LSCS	32
EMERGENCY LSCS	40
GENERAL SURGERY	0
PESA/TESA	7
TESE	3

MINOR CASES

S&E	10
CERVICAL ENCERCLAGE	16
WOUND RESUTURING	1
FC	5
ERA	3
AMNIOCENTESIS	1
MIRENA INSERTION	4
EUA	1
PPS	1

OTHER MAJOR CASES

TAH	2
VH WITH PFR	2
OPEN MYOMECTOMY	2
LAP PROCEDURES	57
TLH	2
TLH +BSO	5
MYOMECTOMY	5
ENDOMETRIOTIC CYSTECTOMY	8
ABDOMINAL ENCIRCLAGE	1
SALPINGECTOMY	6
SALPINGOSTOMY	3
DERMOID EXCISION	4
STERILIZATION	1
PARATUBAL CYSTECTOMY	1
PCO DRILLING	10
ADHESIOLYSIS	1

SURGERY FOR ECTOPIC PREGNANCY

SALPINGECTOMY	6
SALPINGOSTOMY	3

SURGERY FOR ENDOMETRIOSIS

CYSTECTOMY	8
ADHESIOLYSIS	1

HYSTERO PROCEDURES

SEPTUM RESECTION	1
POLYPECTOMY	3
SUB MUCOUS FIBROID RESECTION	1
CU- T REMOVAL	1
PRE IVF HYSTEROSCOPY	26

CONCEPTION + IUI STATISTICS

TOTAL CONCEPTIONS	89
TOTAL IUI CONCEPTIONS	34
IUI CONCEPTION RATE	13.30 %

OTHER CONCEPTIONS

SPONTANEOUS	10
COH ONLY	14
POST LAP CONCEPTIONS	9

IVF/ICSI STATISTICS
JAN TO MARCH 2019

TOTAL NO OF CASES	66
TOTAL CONCEPTION RATE	40.90 %
FROZEN ET CYCLES	16
CONCEPTION RATE AFTER FROZEN ET	42.30 %

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