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RESEARCH ARTICLE

RUPTURE RUDIMENTARY HORN PREGNANCY AT 31WEEK.

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Abstract

Rudimentary horn could be a rare congenital uterine anomalies result from incomplete fusion of the two Müllerian ducts throughout embryo-genesis. Pregnancy in an exceedingly rudimentary horn is rare and typically terminates in rupture throughout the late of 1st or 2nd trimester of pregnancy. we tend to present a rare case of a gravida within the trimester (31 weeks) presented complain of abdominal pain, nausea and vomit for three days. On presentation, the patient was pale and irritable. Ultrasound scan showed fetus at (30 weeks) with cardiac activity. CTG reactive. Incision showed horned uterus with pregnancy in rudimentary left horn that was ruptured. Alive fetus was delivered. The rudimentary left horn was excised. The patient was recommendation to not get pregnant for 3 years, when one year patient came to hospital in active labor at (37 weeks). This case emphasizes the importance of fine antepartum care to avoid morbidity and mortality.

Introduction:-

Pregnancy in an exceedingly rudimentary horn was 1st represented by Mauriceau and liege in 1669[1]. The reported incident is (1 in 100,000 to 140,000) gestation [3,10]. the feminine reproductive organs develop from the fusion of the bilateral paramesonephric (Müllerian) ducts to create the uterus [1]. bicornuate womb could be a rare uterine anomaly result from incomplete fusion of the two Müllerian ducts throughout embryo-genesis. This results in varied degrees of separation between two symmetrical uterine cavities starting from partial separation to complete separation with no communication between the two cavities [1]. gestation in an exceedingly non-communicating rudimentary horn is incredibly tough to diagnose before it ruptures, resulting in life threatening intra-peritoneal hemorrhage, though rupture might not occur till up to sixteen weeks [6]. within the extreme case of gestation in an exceedingly rupture rudimentary horn of bicornuate womb, safe gestation management depends upon early and correct diagnosing to forestall complications admire uterine rupture [8]. we have a tendency to present a case of a patient with a 3rd trimester alive fetus in an exceedingly rupture rudimentary horn of bicornuate womb.

Case report:-

An 18-year-old Saudi female married since one year, primigravida in the third trimester (31 weeks) gestation, unbooked. Presented to Emergency Department complaining of severe progressive abdominal pain, nausea and vomiting for three days. There was no history of bleeding per vagina. Her menstruationbegan at age 14, she bleeds for 5 days with moderate flow each 28 days. There was no history of irregularity or dysmenorrhea. She had no

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method of contraception. She was poorly followed during a health care center and was told to have bicornuate uterus in private clinic (no report). Her medical, surgical and social past history was unremarkable. Clinical assessment on admission the patient was irritable. She was afebrile, her pulse rate was 127 bpm, blood pressure 118/90 mmHg, and respiratory rate was 20/min. Abdominal examination showed distension with generalized tenderness. The uterus was palpable at 32 weeks gestation. The preoperative investigation showed a hematocrit (Hct) of 35%, hemoglobin of 11 g/dl. She was taken for an exploratory laparotomy (ex-lab) under general anesthesia. Intraoperatively, there was a mild hematoperitoneumwith a ruptured left rudimentary horn, with approximately 350 ml of blood within the greater peritoneal sac, a bicornuate womb with a ruptured left rudimentary horn containing a fetus weighing 1400 grams alive. left rudimentary horn has its tube and ovary with a corpus luteum like structure, which horn wasn't communicating with the cervix or other horn, Extensive fusion between the two horns was found. Excision of accessory the rudimentary horn with ipsilateral salpingectomy was carried out,after delivery of fetus through the rupture within the horn, which was extended.

Patient made uneventful recovery, discharged in good condition, asked to follow up in outpatient clinic, but defaulted and failed to return for follow-up. The patient was recommendation to not get pregnant for at least three years, after one year patient came to hospital in active labor at (37 weeks).

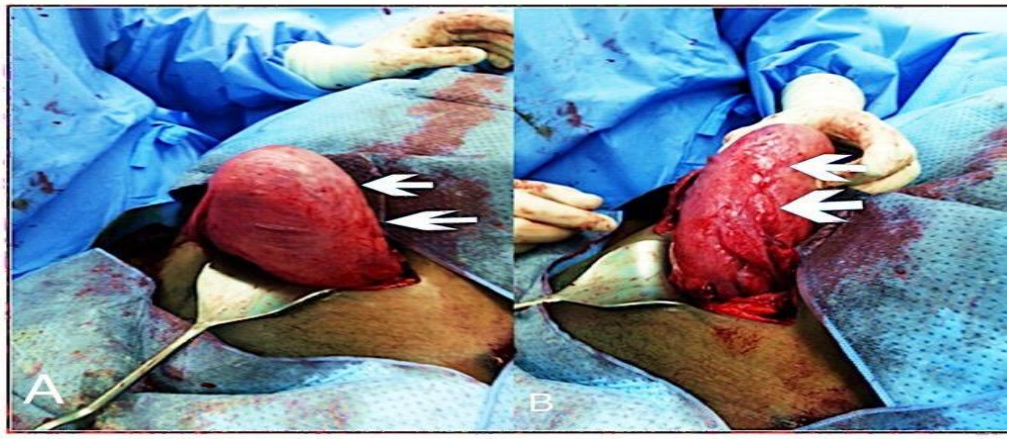

Figure 1:-

picture A : was Intra-operative , c-section , show lower segment delivery and Showed previous scar after excision of left ruptured rudimentary horn .

picture B : was Intra-operative , c-section , show left excision of rudimentary horn not heal .

Histopathology report:-

revealed ruptured gravid uterine horn measuring 19, 9.5, 6 cm with small cavity and no cervix, and cut section revealed normal villi and decidua within a thick ended smooth muscle cavity. Placenta was normal.

Discussion:-

A rudimentary horn with a bicornuateuterus(complete type) occurs as a result of incomplete development of at least one of the Mullerian ducts, besides to the failure in fusion with the contralateral side [1].

Incidence rate of pregnancy in a rudimentary horn with a bicornuate uterus was estimated as 1 case per 100.000 up to 140.000 pregnancies [1,10].Pregnancy in abicornuaterudimentary horn occurs through the transperitoneal migration of the sperm or the fertilized ovum [10]. In 1669, Mauricea was the first to report the first case of rudimentary rupture pregnant uterine horn [4]. Studies indicated to a vast variation in rupture period, ranging from 5 to 35 weeks, and that was attributed to the ability of the horn musculature to hypertrophy and dilate, but it has been identified that about 70 to 90% occurs before 20 weeks and these lead finally to catastrophic results [9]. Hemoperitoneumin case of rudimentary horn pregnancy rupture due to the remarkable thickness of uterus wall that is characterized by being more vascular, in a study conducted by Kadan and Romano, they have stated that the most high threatening the pregnancy is the rudimentary horn rupture [8]. Death rate at the beginning of the 20thcentury was reported as 47.6% [7]. Several diagnostic tools are available to be utilized to identify the rupture, such as ultrasound, laparoscopy, MRI, and hysteroscopy [8].

Studies have revealed that as pregnancy advances, the sensitivity decreases. Yet, there is no single determinant criterion that could detect ruptured rudimentary horn pregnancy in case of emergency, besides to difficulty in diagnosis due to the enlargement of the horn characterized by a thin myometrium obscuring surrounding anatomic structures.

Tsafir*et al* had reported two cases of ruptured rudimentary horn pregnancy in the first trimester that was diagnosed by sonography, and confirmed by MRI, they had pointed to several diagnostic criteria for rudimentary horn pregnancy, such as the pseudo pattern of asymmetrical bicornuate uterus, the absence of visual continuity tissue surrounding the gestation sac and the uterine cervix, The presence of myometrial tissue surrounding the gestational sac [10,8].

It has been reported that pregnancy termination by labor induction agents is unsuccessful and leads finally to horn rupture.

Main management strategy of rudimentary horn is the surgical removal. There are several examples of laparoscopic excision of rudimentary horn. Dicker *et al* had removed a small rudimentary horn through the suprapubic laparoscopic part. Moreover, Yoo*et al* resected a pregnant horn of 5x5 cm laparoscopically. Yahata *et al*. had used endoscopic stapler to transect a fibrous band connecting the rudimentary horn to uterus [10, 5]. Immediate surgery is highly recommended after the diagnosis even in unruptured cases [9]. Furthermore, horn removal is advised before pregnancy occurrence to prevent future complications.Medical screen of anther congenital abnormality like urinary tract anomalies ,As 38% have coexisting renal abnormalities[2]. Medical management with methotrexate also reported but, no role in late gestational and alternative approaches in early gestational to abortion the fetus .

Conclusion:-

Though rare, rudimentary horn pregnancy should be included in differential diagnosis of every practitioner facing an acute abdominal pain in pregnant woman. This case emphasizes the important good quality antenatal care in first trimester can reduce morbidity and mortality.

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