A HUGE MESENTERIC CYST- A RARE INTRA-ABDOMINAL TUMOUR COMPLICATING SECOND TRIMESTER OF PREGNANCY

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ABSTRACT

BACKGROUND

The mesenteric cysts are very huge rare benign intra-abdominal tumours with a reported incidence of 1 case per 2,50,000 inpatient hospital emergencies. Usually, they are discovered either accidentally(1) during an abdominal radiological evaluation for some other reason or during laparotomy for the management of some other complication, because of its rarity varying and non-specific clinical symptom and signs. Hence, the correct preoperative diagnosis becomes very difficult. The aetiopathogenesis of such cysts is unknown, even now but many theories regarding their development has been put forth.

KEYWORDS

Second Trimester of Pregnancy.

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BACKGROUND

Case Report

A 26 years old female G3A2 married since 6 years with a history of 6 months amenorrhoea came as emergency in the labour ward with a history of generalised abdominal pain more on left side, on and off for the past one week. She was not investigated for infertility in the past. Her LMP was not known. She had undergone regular antenatal visit in a private hospital. At two months of gestational age, she had dating scan in a private hospital. On interrogation, no significant past medical or surgical history was present. The generalised abdominal pain more on left side was dull aching and dragging in nature. There was no history of vomiting. There was no aggravating/relieving factors. Bladder and bowel habits were normal.

On examination of the patient, her general condition was fair. She was conscious, moderately built and nourished; not anaemic, no pedal oedema, no jaundice with a pulse rate of 86 bpm, BP 110/70 mmHg, afebrile with 99% SpO2 with normal respiratory and cardiovascular function.

On per abdominal examination abdomen was overdistended for her gestational age, uterus size not made out, foetal heart heard with Doppler, no distended vein, skin over abdomen was normal.(2) Fluid thrill not present and shifting dullness not present. On pelvic vaginal examination cervix was posteriorly placed, uneffaced, os closed, no abnormal discharge per vagina. The patient was kept under observation and investigation proceeded. Complete haemogram, RFT, LFT and urine routine was found to be within normal limit.

On USG, a huge echo-free cystic mass, size of about 30 x 35 cm occupying all quadrants pushing the gravid uterus with gestational age of 18 - 20 weeks, an alive gestation, placenta posteriorly placed with Grade 1 maturity, foetal weight, AFI within normal limit for appropriate gestational age. No foetal anomalies noted. Hence with USG feature of huge cystic mass with the impression of ovarian cyst complicating pregnancy.

Since MRI has no adverse effect on pregnancy and an accurate diagnosis can be made, we proceeded with an MRI for this patient. MRI revealed large circumscribed homogenous cyst of 30 x 35 cm occupying entire abdomen pushing the gravid uterus posteriorly. The cyst was separate from ovaries, spleen, kidney, uterus and liver. With this the provisional diagnosis of huge mesenteric cyst complicating second trimester of pregnancy was made.

Hence, we planned for exploratory laparotomy under GA. The peroperative finding was found to be multiloculated, flimsy septations, size of 30 x 35 cm occupying all quadrants arising from transverse colon of the large bowel. The cyst was adherent to adjacent structure such as small bowel, large bowel and omentum. The adhesion was released slowly with great difficulty. The entire huge cyst was excised into and sent for HPE. The pregnancy was continued through second trimester and third trimester with frequent antenatal checkup with tocolytics for two weeks. Postoperatively, patient was discharged on the 7th POD with nil complaints.

The histopathological examination showed that cyst wall was lined by flattened benign epithelium with no granuloma or malignant feature, so opinion was consistent with clinical diagnosis of benign mesenteric cyst.

Antenatal followup USG abdomen was done and no trace of cyst was found. Patient had spontaneous onset of labour 1 week before EDD, delivered labour natural alive male baby, baby weight 3 kg, Apgar 1 min and 5 mins 8 - 10. All the stages of labour were uneventful.

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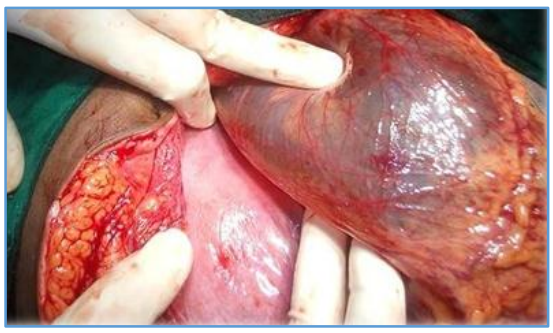

Figure 1. Huge mesentric cyst

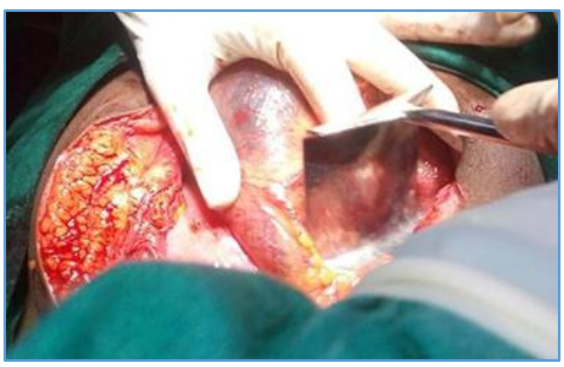

Figure 2. Gravid uterus posteriorly

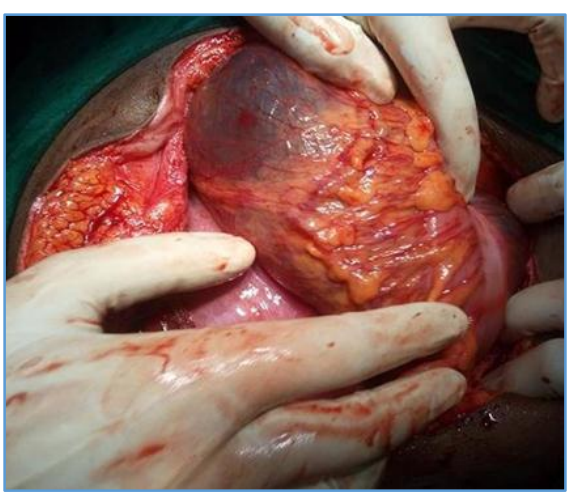

Figure 3. Cyst from transverse colon

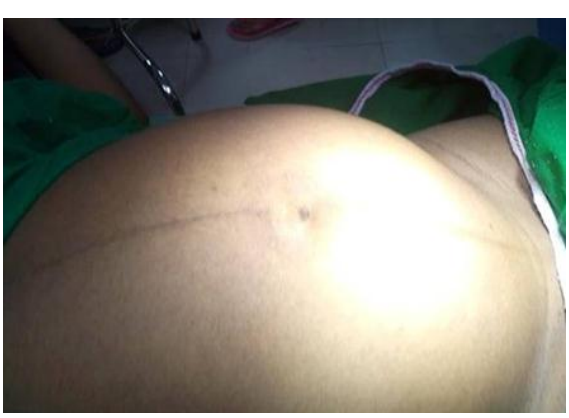

Figure 4. Distended abdomen inappropriate for gestational age

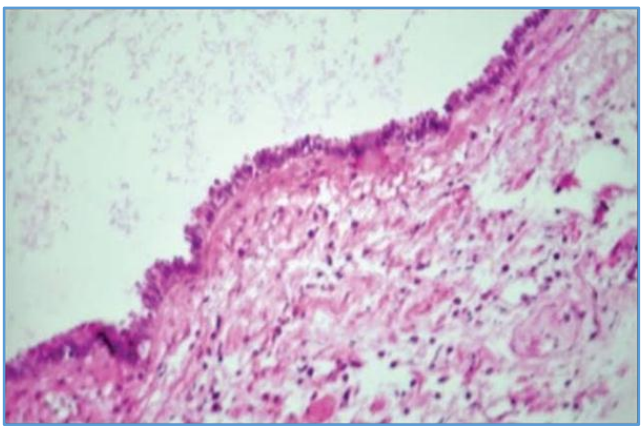

Figure 5. Flattened epithelium with no granuloma

DISCUSSION

The Italian in 1907 reported a mesenteric cyst at autopsy on an 8-year-old girl. A chylous mesenteric cyst in 1842 was reported by von Rokitansky. The first successful surgery for the mesenteric cyst was performed in 1880. Egleston children's hospital at Emory University treated only 14 patients for mesenteric cysts, which represents a prevalence of about 1 case per 11250 admissions. Mesenteric cysts are rare surgical condition occurring approximately in 1/200,000-350000 hospital admissions. A mesenteric cyst is a cyst located in the mesentery, which occur anywhere in the gastrointestinal tract from duodenum to rectum.[3] In a series of 162 patients review 60% of the cyst was observed in the small bowel mesentery, 24% of mesenteric cyst in the large bowel, 14.5% in the retroperitoneum. This can be simple or multiple, unilocular or multilocular. They may contain haemorrhagic or serous or infected fluid.

As observed by Gross, the mesenteric cysts are thought to represent benign proliferations of ectopic lymphatics that lack communication with the normal lymphatic system. The cysts are thought to arise from lymphatic spaces associated with the embryonic retroperitoneal lymph sac. This makes them analogous to cystic hygromas, which arise in the neck in association with the jugular lymphatics. Another, proposed aetiology is lymphatic obstruction; however, experimental occlusion of lymphatic channels in animals does not produce mesenteric cysts because of the rich collaterals in the lymphatic system. Other theories include failure of the embryonic lymph channels to join the venous system, failure of the leaves of the mesentery to fuse, trauma, neoplasia and degeneration of lymph nodes.

In our case, the huge mesenteric cyst[4] in the second trimester of pregnancy is very rare. This case is reported for its mammoth size and surgical excision without interfering with the pregnancy.

In our case the mesenteric cyst arising from a transverse colon in the large bowel is still more rare. The diagnosis is proven provisionally with MRI report, proven on laparotomy[5] and histologically confirmed. Even though the laparoscopic cystectomy during pregnancy is safe, feasible and less invasive, we preferred exploratory laparotomy under GA due to large size of the cyst and possible adhesions. So excision of the mesenteric cyst in toto is done safely and pregnancy was continued. The patient had delivered at full term, alive baby by labour naturally which is the goal of the

obstetrician. The patient had regular followup. No recurrence or no other complications were noted.

Hence, the knowledge of the lesion is important even with its rarity for its optimal surgical management.

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