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Case Report

A Rare Case of Spontaneous Splenic Rupture During Pregnancy

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Abstract : Spontaneous splenic rupture is a rare but serious and potentially a lifethreatning situation. Which is usually associated with hematologic, infectious or neoplasic disorders. In an extrem rare case the spontaneous splenic rupture is without underlying cause in this case report we presente a patiente in 36 weeks and three days pregancy with a spontanesous splenic rupture dignosed in peroperation of an urgent cesarean section.

Keyword : Spontaneous splenic rupture, pregnancy.

Introduction:

Spontaneous splenic rupture is a rare clinical entity [1]. The first cases of spontaneous splenic rupture were described in the 18th centary, in the year 1966 Knoblish mark out that the atraumatic splenic rupture of unknown ethology is identifed as spontaneous splenic rupture [2]. Due to the dramatic outcomes an urgent diagnosis and treatment should be proceed. Which Splenectomy hemostatsis is the most common treatment [3].

Case report:

Mrs DH, 36 years old, gravida 5, para 3 with one alive child , 1 miscarriage, 3 vaginal deliveries. The patient was referredc from peripheral hospital to our departement for with the diagnosis of fetal distress of her current pregnancy which estimated at 36 weeks and 3 days. During investigation the patiente gave a history of feeling of uneasiness in the early mornig which passed by few minutes later, there was no history of hypetension or fever, rush, trauma vomiting or bleeding. No significant past medical, surgical or family history.

On examination, a moderate degree of pallor, slightly discolored conjunctivae, aith 107 bpm and a blood prssure of 130/70 mm of Hg. In Obstetric examination the patient presnted with active uterine contractions,30 cm of uterine height, an active fetal heart beat, vaginal examination revealed a flexible median cervix, awell erased and dilated with 2 fingers, cephalic presentation and intact membrane, the fetal monitoring reveals abnormal fetal cardio rythm.

The patient was taken to the operating room for an emergency C section for fetal disteress, during cesarean section with a pfanstiel incision, when opening the parietal peritory, approximately 1L of hemoperitoneum was suctioned, the patiente started to presente hypovolemic shock, rapid extraction of a live born female of 2600 grams and Apgar score 7-9 at first and fifth minutes, respectively. The uterus was found to be intact no uterin rupture also the ovaries tubes were normal, a decision for a median incision above the umbilical for better exploration of the abdominat cavity with the help of the team of general surgeons, allowed the identification of a splenic rupture with grade 4 hematoma of the spleen figure (1,2). A decision for radical treatment a splenectomy. An assured hemostatsis, an intraperitoneal drain was applied. Intraoperatively the patient went through general anesthesia, a central line and arterial line were placed. Transfusion of 3 CG and 4 plasma

was administered intraoperatively which allowed the decrease in doses of norepinephrine followed by total withdrawal. In the postoperative period, two additional red blood cells were transfused because of an intolerated anemia. Prophylactic doses of amoxicillin were administered, followed by oracilline. The drain was removed on post-op day 5. The patient was discharged in the 7th day of post –op, with a check up date with the internal medecine departement to follow up on her splenectomy.

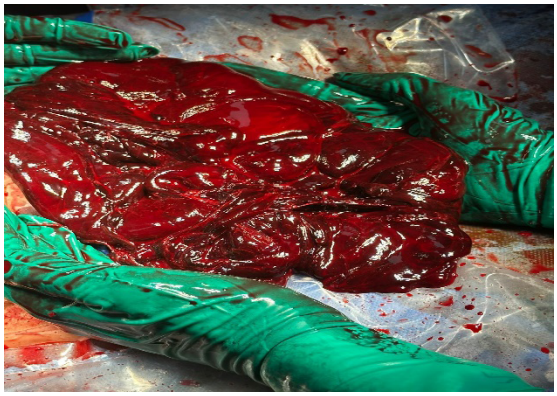

Figure 1: Hematoma of the spleen

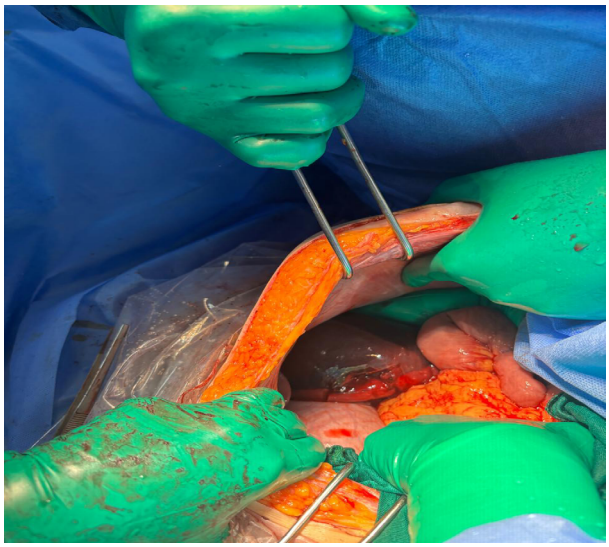

Figure 2: Splenic rupture

Discussion:

Splenic rupture during pregnancy is a rare lifethreatening complication [4]. Spontaneous splenic rupture occurs most likely in third trimester of pregnancy [4], with a high maternal and fetal mortality rate. The etiology is unknown, but many authors explain it due to the enlargement of spleen associated with an incrased blood volume and diminished peritoneum cavity volum due to an enlarged pregnant uterus [5,6]. Also, the hormonal changes during pregnancy by estrogen and progesterone might cause structural changes to the spleen, causing a spleen rupture without any underlying disease [7]. The majority of cases are linked to infectious and hematological diseases, which together account for over half of the occurrences. Infectious causes, making up 30%, are predominantly due to infectious mononucleosis and malaria. Hematological causes, comprising, are largely associated with malignant hemopathies. Less common causes include solid or benign tumors, digestive conditions such as pancreatitis or portal hypertension, rheumatological disorders, and end-stage renal failure requiring dialysis. Interestingly, in approximately 5% of cases, non identifiable cause or history of trauma is found [8,9].

Which is the case of our patient. Diagnosing splenic rupture can be challenging due to the nonspecific nature of its symptoms, which often overlap with other surgical emergencies, making accurate identification more complex.The most common symptom of splenic rupture is left upper quadrant abdominal pain, if left untreated, the patient can be presented with signs of hemorrhagic shock, tachycardia, hypotension, oliguria and abdominal distention. This diagnosis should be urgently confirmed through ultrasound as the first line imaging technique. However, CT scan offers superios sensitivity and more detailed assessment of the lesion [10].

Performing an emergent laparotomy, for a radical splemectomy remains the definitive treatment. However due to the spleen critical role in immune response, a conservative approach is increasingly being considered as an alternative.

Conclusion:

Spontaneous splenic rupture during pregnancy is a rare condition, associated with high maternal and fetal mortality rates. The exact pathogenesis of the disease remains poorly understood. A splenic rupture should be considered as a diagnosis of hemoperitoneum without a uterine explication.

Patient consent: A consent for publication of the case was obtained from the patient.

Competing interests : The authors declare no competing interestes.

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