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RESEARCH ARTICLE

ILEOSIGMOID NODE DURING PREGNANCY: RARE SURGICAL ENTITY

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Abstract

The ileo-sigmoid knot is a rare surgical entity, corresponding to the wrapping of the ileum around the base of the sigmoid colon forming a knot.An associated condition with a rapid progression to intestinal gangrene and high mortality. It is a rare cause of intestinal obstruction and especially during pregnancy. We report here the case of a patient at 13 weeks of amenorrhea with an ileo-sigmoid knot diagnosed at a late stage with fetal loss.

Introduction:-

Ileo sigmoid knot (ISK) is a rare cause of intestinal obstruction characterized by the ileum wrapping around the base of the sigmoid colon forming a knot, ISK is rare 0.5% to 1.7% of intestinal obstructions, with a mortality rate of 0 to 48% (average 35.5%) [1-2].We report the case of a pregnant patient of 13 weeks of amenorrhea with a late diagnosed ISK that required an emergency laparotomy with fetal loss.

Patient and Observation:-

Patient aged 32 years, O RH positive grouping, third gesture and the second part at 13 weeks of amenorrhea (WA), without any notable pathological history admitted in our structure in a state of shock with symptomathology evolving since two days, made of abdominal pain with a stop of trades and gases. On clinical examination, the patient was conscious, blood pressure 81/40 mmhg, pulse 117b/min regular, respiratory rate of 28 cycl/min and a temperature of 37.7oC. A distended abdomen with diffuse tenderness to palpation and no bowel sounds on auscultation.Vaginal and rectal examinations without abnormalities. The patient was resuscitated with IV filling and vasopressin. CBC showed white blood cells at 24,000/mm3, hemoglobin level of 8.0 g/dl. Transvaginal ultrasound revealed a dilated bowel with ascitic fluid and a non-progressive intrauterine pregnancy with a craniocaudal length corresponding to 12 WA, without an image of trophoblastic detachment. The diagnosis of acute intestinal obstruction complicated by fetal death was made. For further diagnostic accuracy a CT scan was performed, showing a dilated loop of the sigmoid colon in the right lower abdomen, suggestive of sigmoid volvulus and radial distribution of several dilated and fluid-filled bowel loops.

The patient was admitted to the operating room for an emergency laparotomy

On exploration, we discover two liters of pus with gangrenous odor, 360° volvulus of the sigmoid loop with several turns of the small intestine necrotic in appearance and wrapped around a doligomega-sigmoide next to a gravid uterus (figure 1).

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After detorsion of the volvulus, the sigmoid colon appeared viable and was respected, the necrotic loop was resected, taking 40 cm of the small intestine, located 2 m from the duodenojejunal angle, with a forced hand, due to the hemodynamic instability, the immediate re-establishment of the digestive continuity was not possible and a double gun barrel ileostomy was chosen

The postoperative course was simple with spontaneous expulsion of the fetus in the immediate postoperative period, and discharge from the hospital on the 8th postoperative day.

12 weeks later, she will benefit from a restoration of digestive continuity with prophylactic sigmoidectomy

Discussion:-

Intestinal obstruction in pregnancy is a rare condition and its incidence varies from 1 in 1500 to 1 in 66 431 deliveries [3]. In 58% of cases intestinal obstruction in pregnancy is related to adhesions followed by volvulus with 28% of cases [3]. ISK is a rare situation [4], it is common in Africa, Asia, the Middle East and South Africa [4]. ISK is more common in men (80.2%) compared to women and at a mean age of 40 years (range 4-90 years)[1].The reported incidence of ISK during pregnancy ranges from 3.2% to 5.9% of all ISK cases[1-5].ISK has Several predisposing factors. A long small mesentery and a freely moving small intestine, a long sigmoid with a narrow pedicle and with a high-fat diet [6-7]. Advanced pregnancy is a predisposing risk factor for ISK because of the obvious displacement of the intestine [8], a situation that is unlikely in our case as the patient was in early pregnancy. The clinical picture may be disturbed by normal complaints during pregnancy [9]. This was the case in our patient, with symptomathology evolving for more than 02 days, diagnosed late on CT images.

The radiological examinations recommended for intestinal obstruction are often avoided during pregnancy [9].A situation that did not arise for our patient who already had a stopped pregnancy.

The management of ISK requires a multidisciplinary collaboration involving general surgeons, obstetricians and neonatologists [9]. Preoperative resuscitation, with vascular filling and correction of electrolyte balance, with broad-spectrum antibiotic therapy and nasogastric decompression constitute the initial management followed by emergency surgery in all patients [1.9]

Surgical options are dictated by intraoperative exploration:

In the absence of gangrene, knot untying combined with a volvulus prevention procedure such as mega-doligosigmoide resection with primary anastomosis is an acceptable option [2]. In cases where both the small bowel and the sigmoid colon are gangrenous, untying the knot may be difficult with a risk of spillage of toxic intestinal contents [10] and resection is necessary with the restoration of digestive continuity if the hemodynamic state allows, otherwise, temporary shunts are used such as in the case of our patient who benefited from ileostomy

Figure 1:- Intraoperative image of several loops of small bowel necrosis wrapped around a viable mega-dolichosigmoid colon.

Conclusion:-

Isk during pregnancy is a very rare condition often diagnosed at a late stage. Management requires a multidisciplinary approach involving general surgeons, obstetricians and neonatologists with aggressive preoperative revival and emergency surgery.

Conflicts of interest:
The authors declare no conflicts of interest.

Figures:
Figure 1: Intraoperative image several loops of necrotic small bowel wrapped around a viable mega-dolichosigmoid colon.

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