Case Report

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Iatrogenic Mechanical Ileus due to Over-Distended Uterus

U.	Uzi	Dan
J.	Jaron	Rabinovici
M.	Moshe	Roller
G.	Gadi	Barkai
S.	Shlomo	Mashiach

Department of Obstetrics and Gynecology, Chaim Sheba Medical Center Tel-Hashomer, Tel Aviv University Sackler School of Medicine, Israel

Key Words

Mechanical ileus

Over-distended uterus

Abstract

The combination of an over-distended uterus caused by a multiple-fetus pregnancy with therapeutic bed-rest may cause mechanical ileus. Iatrogenic triggering of a pathological consequence of events is presented in purpose to highlight the simplicity of its prevention.

Dr. Uzi Dan, Department of Obstetrics and Gynecology, Chaim Sheba Medical Center, Tel-Hashomer 52621 (Israel)

Introduction

The pathogenesis of mechanical ileus is likely to be the same during pregnancy as in a nonpregnant abdomen. Intestinal obstruction complicating pregnancy has previously been described due to adhesions, volvulus and intussusception [1]. We would like to report a case of a mechanical ileus during pregnancy due to external pressure of an over-distended uterus on the colonic-sig-moid junction.

Case Report

V.R., a 26-year-old healthy primigravida with a triplet pregnancy, conceived following clomiphene citrate treatment. She presented at 30 weeks of gestation with uterine contractions. Upon admission, a tocolytic treatment by intravenous ritodrine (Yutopar) was initiated, accompanied by one course of 24 mg dexamethasone to enhance fetal lung maturity. Twenty-four hours later the patient complained of mild pain in the upper abdomen, nausea and vomiting. Physical examination revealed a slightly distended abdomen with normoactive bowel sound and passage of flatus. On the following day, her abdomen was markedly distended and diffusely tender, and her bowel sounds were found to be more reactive, not high-pitched. She complained of severe abdominal pain, nausea and vomiting. A nasogastric tube was placed, and nonbloody fluid was obtained upon suctioning. The patient was then treated by adequate intravenous hydration and replacement of serum electrolytes, and tocolytic treatment was discontinued. An abdominal plain X-ray showed marked distension of the transverse and descending colon.

Disappearance of bowel sounds, clinical signs of peritoneal irritation and progressive cervical dilatation led to the performance of an explorative laparotomy.

Three viable fetuses were delivered via a lower segment uterine incision (birth weight: 1,375; 1,385; 1,520 g). There was a marked dilatation of the transverse and descending colon down to the sigmoid juncture with the visceral peritoneum. No volvulus, adhesions or any other obvious signs of obstruction were observed. Colonic decompression was achieved in-

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traoperatively via a rectal tube. Normal bowel function was observed on the 3rd postoperative day, and the patient fared well.

Discussion

Intestinal obstruction is a rare and often undiagnosed cause of abdominal pain in pregnancy [2]. Pressure of the uterus on the pelvic brim has been proposed as an etio-logic factor for mechanical ileus [3]. Beta-mimetic tocolytic agents are well known to cause an imbalance of electrolytes. Hypokalemia (2.8 mEq/l), documented and treated in the above report, can either be a primary or secondary cause of intestinal obstruction. Paralytic ileus caused by hypokalemia is probably non-segmental.

The clinical symptoms or findings (ileus plus enlarged transverse colon and cecum), and radiological interpretation of this case led to the diagnosis of mechanical ileus. Both barium enema and colonoscopy were considered as diagnostic and therapeutic regimens, but laparotomy and evacuation of the uterus were chosen as the best procedure in this case. The intraoperative findings confirmed the preoperative diagnosis of enlarged transverse and descending colon, and obstruction in the colonic-sigmoid junction.

In the above case, the ambulatory healthy gravida had been restricted to her bed during the course of the tocolytic treatment, and remained immobile on her left side for a prolonged period of time. The resulting perma-

nent pressure of the extremely enlarged uterus (due to triplets) on the colonic-sigmoid junction led to the development of an intestinal obstruction. At this stage, a change of posture to the right side did not relieve her intestinal symptoms. Evacuation of the uterus and colonic decompression was followed by an early restitution of bowel function without further sequelae.

Bed-rest constitutes one of the mainstays of tocolytic therapy. The above case demonstrates a possible deleterious effect of this treatment. It is the purpose of this case report to emphasize the crucial necessity of mobilization of pregnant patients who must have prolonged bed-rest.

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