Letter to the editor

Management of sigmoid volvulus during labor: a challenging situation

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Dear Editor

We read the article written by Belhaddad and Souabni[1] on sigmoid volvulus (SV) during pregnancy and delivery. We practice in an endemic region for SV, Eastern Anatolia. For this reason, our SV series, which involves 1,051 patients encountered over 56 year-period (from June 1966 to July 2022), is the most extensive single-center SV series in the world[2]. In this way, we would like to share our ideas on SV associated with pregnancy or delivery.

First, pregnancy complicating SV is a fairly seldom clinical entity worldwide with little more than 110 cases reported to date[3]. Similarly, labour together with SV is extremely rare, the number of which can be counted on the fingers of one hand[4]. In our SV series, we have 11 pregnant women (5.8% among 190 women), while there is no case related to delivery. Most likely due to the rarity mentioned above, the pathophysiology is not well described. In our experience, the relationship between pregnancy and SV is likely due to decreased intraabdominal volume as a consequence of the enlarged uterus which prevents spontaneous detorsion of the physiologically rotated sigmoid colon and results in SV, which may account for the relatively high SV incidence in pregnant women when compared with their non-pregnant counterparts. Regarding the pathophysiology of SV during delivery, labour seems to be a precipitating factor rather than a preparative. Dolichosigmoid, an elongated and enlarged sigmoid colon, is the most known formation factor in SV. However, a triggering factor including premorbid diarrhoea, reaping, coitus, delivery or overeating are generally determined at the beginning of SV[4]. In our opinion, labour initiates SV by forcing the dolichocolic sigmoid colon to rotate.

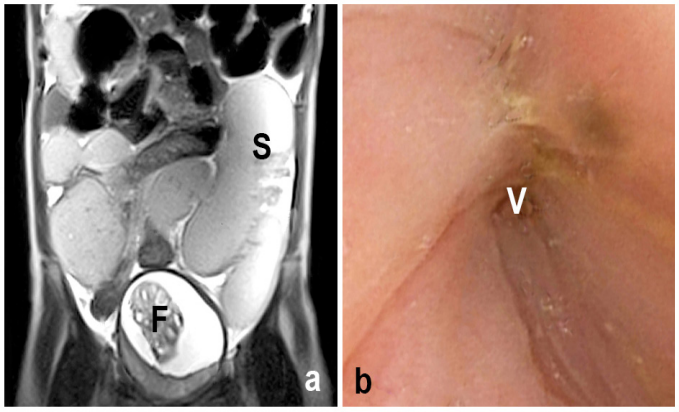

Figure 1. Radiological, and endoscopic findings in a pregnant women with sigmoid volvulus. a. Abdominal coronal magnetic resonance image (S: dilatation and rotation in sigmoid colon, F: fetus). b. Endoscopic appearance (V: twisted and obstructed volvulus point in sigmoid lumen)

Secondly, some physiological gestational symptoms including abdominal pain, nausea, vomiting, and constipation may cloud the clinical picture of SV in pregnancy, which complicate and retard diagnosis and management. More than a half of the patients complain about abdominal pain, distention, and obstipation. Ultrasonography may be useful for evaluating the fetus rather than diagnosing SV. Abdominal X-ray radiography demonstrates a dilated and rotated sigmoid colon and it is diagnostic in about 60-80% of the patients. Instead, computed tomography (CT) and magnetic resonance imaging (MRI) are highly diagnostic with 86-97% accuracy rate by showing mesenteric whirl sign in addition to X-ray findings (Figure 1a).[2,5] Although a single X-ray radiography or a CT imaging should not be withheld when needed, in our experience, most patients refuse them because of the fetal radiation risk and most practitioners avoid them due to probable medicolegal responsibilities. Flexible endoscopy is diagnostic in 76-98. 7% of patients by demonstrating a twisted obstructive lumen (Figure 1b)[2,5]. For this reason, we generally use and advise endoscopy or MRI instead of X-ray and CT, in contrast to the authors' choice. In our series, SV was diagnosed by endoscopy in 6 patients (54.5%), by MRI in two (18.2%), while at laparotomy in 3 (27.3%).

Thirdly, although the enlarged uterus is theoretically thought as a frustrating factor in endoscopic decompression, flexible endoscopy is the first therapeutic option in non-gangrenous patients in clinical practice[2,5]. Our experiment with 85.7% of success rate (6 of 7 patients) support this idea. Patients with unsuccessful non-operative decompression in addition to non-diagnostic and gangrenous cases require emergency surgery[1,5], as was applied in the authors' case.

We congratulate the authors for their uncommon presentation and look forward to their reply.

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