the gastrointestinal tract, enabling endoscopic management
with no complications.

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Simultaneous volvulus of the ileum and sigmoid colon

Vólvulo simultáneo de íleon y sigmoide

A 33-year-old woman was admitted to the emergency
department due to abdominal pain and distension and a
2-day absence of bowel movement. An abdominal CAT
scan was taken, showing the whirl sign, and sigmoid colon
volvulus was diagnosed (fig. 1). It was resolved through
rectosigmoidoscopy and the patient was released. She
returned 3 weeks later due to sudden abdominal pain,
distension, fecaloid vomiting, and dehydration of 2-day
progression. Physical examination revealed absence of peri-
stalsis, abdominal pain and generalized tenderness, and a
positive Blumberg’s sign. Her CBC reported leukocytosis of
17,300 and 16% band forms. She did not have any radiogra-
phy studies. An abdominal ultrasound was given, identifying
generalized distension of bowel segments and the presence
of free fluid. An exploratory laparotomy was performed,
considering a diagnosis of recurrent sigmoid colon volvulus,
given her past history. Unexpectedly, simultaneous small
bowel and sigmoid colon volvulus was found (fig. 2). The
ileum was the affected portion of the small bowel, at
approximately 2.7 m, just 5 cm from the ileocecal valve.
The latter presented with necrosis due to clock-wise tor-
sion of its mesentery, together with the clock-wise volvulus
of the sigmoid colon. The decision was made to perform
ileal resection with primary anastomosis and sigmoid colon
resection with the Hartmann procedure.

The patient had adequate progression and upon improve-
ment was released from the hospital. Colostomy closure has
now been carried out and the patient continues to have ade-
quate progression and is being seen in outpatient follow-up.
This case corresponds to a simultaneous volvulus of the ileum
and sigmoid colon, also known as double or compound
volvulus.

First described by Parker in 1845,3 it is a rare entity that
has been reported in the Middle East, Asia, and Africa more
often than in the western medical literature.1,2

Three factors have been related to double volvulus: a
long and mobile small bowel mesentery, a redundant sigmoid
colon with a short pedicle, and a diet simultaneously high in
volume and abundant liquid intake.4

In relation to its pathogeny, it is suggested that when
the abovementioned diet is ingested, it progresses through
segments of the jejunum, making them heavier, and caus-
ing their collapse toward the left inferior quadrant, while
the empty segments of the ileum and distal jejunum twist
clockwise around the narrow base of the sigmoid colon.4

Double volvulus is a condition that rapidly progresses
to gangrene of both twisted segments and the most common
complications are peritonitis, sepsis, and dehydration. The
main symptoms include abdominal pain (100%), abdominal
distension (94-100%), nausea and vomiting (87-100%), and
rebound tenderness (69%).4

Preoperative diagnosis of this condition is very diffi-
cult and is calculated to exist in only 20% of the cases.5
However, there are 3 orienting characteristics: symptoms
of small bowel occlusion, an x-ray predominantly showing
large bowel obstruction, and the impossibility of inserting a
sigmoidoscope.4

In addition, the so-called whirl sign can be identified
through CAT scan. This sign was described by Fisher as an
image produced in the mid-gut when intestinal segments

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Numerous types of volvulus. Intestinal volvulus is described as the twisting of the bowel around its mesenteric axis, with the bowel mesentery wrapped around the base of the twist. The twist is described as active and passive. Active volvulus is the most common type and can be caused by mechanical factors such as adhesions or bowel distension. Passive volvulus occurs when the twist is caused by a decrease in the blood supply to the bowel, which can occur due to mechanical factors or a decrease in cardiac output.

The Alver classification: The Alver classification categorizes volvulus into types based on the presence of strangulation and the degree of bowel obstruction. Type I volvulus is characterized by the presence of strangulation and a high degree of bowel obstruction. Type II volvulus is characterized by the presence of strangulation but a lower degree of bowel obstruction. Type III volvulus is characterized by the absence of strangulation and a low degree of bowel obstruction.

Intestinal gangrene has been found in 73.5-79.4% of the anatomic and pathologic findings. Numerous procedures combine the resection of one or both segments with anastomosis or ileostomy and anastomosis or the Hartmann procedure for the sigmoid colon. The most frequent procedure is ileal resection with primary anastomosis and sigmoid colon resection with the Hartmann procedure. However, ileal anastomosis is not recommended if it is at least less than 10 cm from the ileocecal valve.

Double volvulus is a rare entity. Its diagnosis is not simple, requiring a high degree of suspicion, but several guiding aspects have been described. The findings from imaging studies are useful for early diagnosis.

A 15-73% mortality rate has been reported, and septic shock is the main cause. Its reduction is related to the presence of a non-gangrenous colon, and therefore it is imperative that the patient be treated with aggressive fluid resuscitation, antibiotics, and effective surgery that is individualized and directed according to operative findings and the condition of the patient.

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Conflict of interest

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