

## PICTURES IN DIGESTIVE PATHOLOGY

# Abdominal pain and intestinal malrotation in adults

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### INTRODUCTION

Acute abdominal pain is a common symptom attributable to numerous causes. Nevertheless, we occasionally come across anatomical variants, such as intestinal malrotation, which hinder the appropriate diagnosis of common diseases presenting atypical symptoms.

### CASE REPORT

A 29-year-old male presented symptoms of pain in the upper abdomen accompanied by vomiting. Of relevance in his medical history, the patient reported episodes of recurrent chronic abdominal pain and vomiting. An abdominal CAT-scan was performed (Fig. 1) which showed an anomalous arrangement of the bowel loops located in the upper abdomen. It also revealed a horseshoe-kidney and signs of bowel obstruction with volvulus secondary to intestinal malrotation. Laparotomy was then performed and transmesocolic herniation of all bowel loops with volvulus and fixation by Ladd's bands was found. Ladd's procedure was then performed by cutting all the bands and rotating the bowel loops to reduce the volvulus and closing the mesocolon orifice. On finding the bowel completely viable, resection was not required.

Post-operative outcome followed a favorable course without complications.

### DISCUSSION

Intestinal malrotation is a congenital anomaly of the rotation and fixation of the bowel. Different variations of malrotation have been described, such as reverse rotation, different degrees of irregular rotation and even cases of no rotation at all. It can be asymptomatic or may be manifested by recurrent abdominal pain that is often misdiagnosed as biliary colic, pancreatitis, dyspepsia or psychological disorders (1-3). Hence, the diagnosis in adults is difficult because of the low incidence in this age group (4,5), especially if there is no good reason to suspect otherwise.

CAT-scan is the diagnostic technique of choice in adult patients, as it provides additional information such as mesenteric vessel position (whirlpool sign), intestinal viability, the presence of volvulus and other associated malformations.



Fig. 1. Abdominopelvic enhanced CAT-scan. Venous phase after intravenous injection of contrast media: Anomalous intestinal malrotation to the left of the mesenteric vessels, without identifying any bowel loops in the lower abdominal cavity and with a downward displacement of the entire colon along with whirlpool sign on the upper mesenteric artery and vein.

The treatment of choice when there are clear symptoms is Ladd's procedure. It involves cutting the peritoneal bands that fix the bowel in its anomalous position.

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