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Cecal Volvulus: Reporte of 3 Cases with a Literature Review

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Abstract | **Case Report**

The cecum is the second part of the colon that is most commonly affected by the volvulus after sigmoid colon and before left corner and the transverse colon. This condition occurs in patients with abnormally mobile cecum. Volvulus is characterized by torsion or tilt. Clinically, it appears as bowel obstruction due to acute strangulation. Abdominal x-ray and abdominal CT scan are the radiological procedures of choice in the diagnosis of volvulus of the cecum. Treatment is based on emergency surgical resection of the cecum and of the terminal ileum. We report three cases of patients with volvulus of the cecum admitted to the emergency department with acute intestinal obstruction. In all patients, the diagnosis was confirmed by abdomino-pelvic CT scan and the treatment was based for tow of our patients on ileocolic resection with immediate restoration of the intestinal continuity. The postoperative course was uneventful the third patient had a medical traitement with a good evolution.

Keywords: Cecal volvulus, Bowel obstruction, Acute occlusion, Manual untwisting, Caecopexy.

INTRODUCTION

In 1837 The first description of the cæcum volvulus was reported by Rokitanski [1], it's a twisting of the initial part of the right colon and the terminal part of the ileum around the right lower vascular pedicle, it's accounts for 1% of all causes of large bowel obstruction [2], Despite numerous publications, the symptomatology and the management of this pathology remain controversial [2, 3].

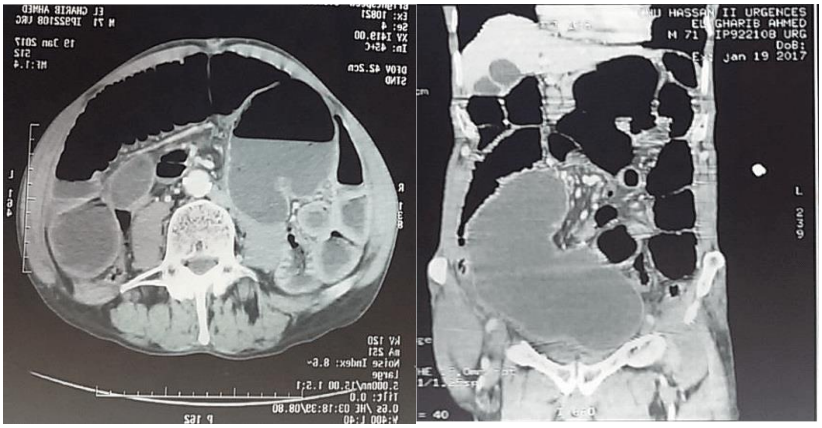
We report the cases of three patients who were treated for a caecum volvulus in our emergency departement.

CASES REPORT

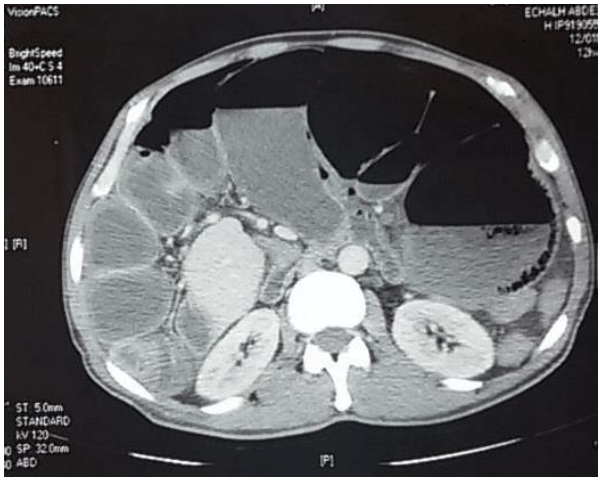
Three patients aged between 38 and 66 years were admitted to the emergency room, with symptoms of intestinal obstruction; sudden onset severe epigastric pain associated with vomiting and abdominal distension, The interrogation found a brutal installation mode, similar for all three patients.

The first patient has a feculent vomiting and his symptomatology evolving five days before his admition The other two patients were admitted to the emergency room 3 days after their symptomatology began.the examination found a distended, hypertympanic abdomen for the 3 patients with a slight diffuse abdominal sensitivity, the hernial orifices were free and the rectal ampulla was empty,the lab tests showed leucocytosis for tow patients at 15000el/ml-18000el/ml and also an elevated PRC at 220-250, an injected abdominal CT was performed for the 3 patients and which objectified a significant grelic distention upstream of a caecum volvulus, one of the patients had Pneumoperitoneum with a caecal wall defect and intraperitoneal effusion.

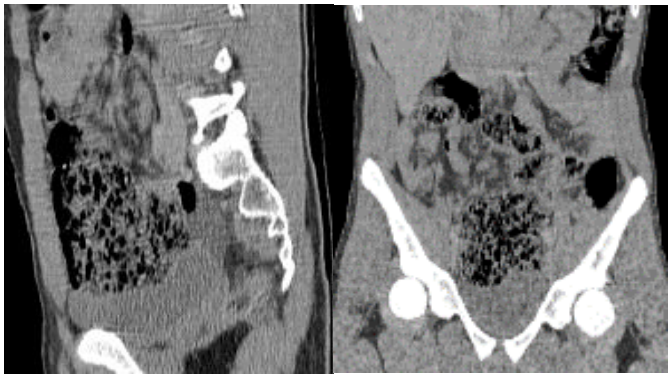
Two patients were operated, by laparotomy, the first patient had ileocecale resection with ileo-colic end to side anastomosis. The second had a right hemicolectomy with ileo-transverse side to side anastomosis The post-operative follow-up were simple the 3rd patient had a conservative medical treatment with a good evolution.



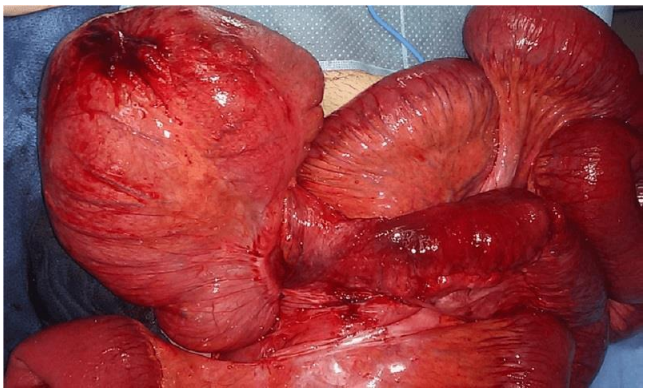
Abdominal CT of the first patient patient



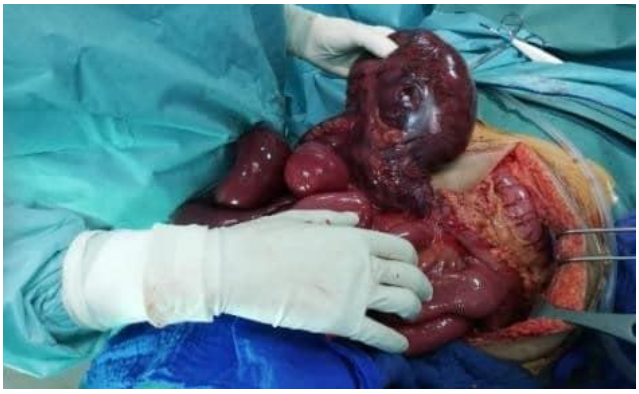
Abdominal CT: patient 2



Abdominal CT: patient 3



Per-opérative view of the first patient showing caecum volvulus on its mesenteric axis



A per-operative view showing a necrosis with a perforation (second patient)

DISCUSSION

The caecum volvulus is a torsion of the right colon around its mesen-teric axis that is only possible if the proximal colon is mobile, Excessive mobility of the caecum is due to incomplete embryological rotation of the bowel or a lack of bracing of the ascending colon to the posterior parietal peritoneum [4, 5], Two main types of volvulus are described: either by a rotation of the colon around its axis, the caecum remaining then in the lower right abdominal space, or by a flip of the caecum associated with a rotation of the colon which then places in the upper left space of the abdomen [2, 6, 7].

Diagnosis of cæcum volvulus is difficult because clinical signs are not specific and the intensity of pain is extremely variable [5], It is manifested by acute or subacute intestinal occlusion. The abdomen X-ray may be useful for diagnosis but its not specific with a low sensitivity [2]. The abdominal CT is a powerful diagnostic exam,It diagnoses an associated complication such as ischemia or perforation [6] , Colonoscopy can be performed showing volvulus and parietal ischemia or perforation [8, 9], Endoscopic detorsion may be indicated in the absence of severe ischemia but carries a significant risk of perforation [10], Treatment has three purposes: to remove the barrier by detorsion, if possible, to treat progressive complications and prevent recurrence [11]. It remains a controversial issue, The right hemicolectomy with primary anastomosis is recommended by several teams even in the absence of colic necrosis because it removes the risk of recurrence [12-15], Coecostomy is effective in preventing recurrence but carries a high risk of infection and exposes to the risk of digestive fistula requiring closure intervention,Infectious complications are less common with caecopexias but recurrences are more common [16].

Coelioscopic surgery is rarely used urgently due to cæcum distension and exposure difficulties. It could be performed after an endoscopic detorsion and exsufflation [17].

CONCLUSION

The topography of the ileocecale region and its peritoneal contingencies is highly variable. The caecum volvulus should be mentioned in patients who have acute abdominal pain especially when there are suggestive radiological signs. Rapid and appropriate management is necessary to reduce the risk of morbidity and mortality.

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