

Dear Doctor,

Greetings from Micro Labs limited. We are happy to bring you “**ENTERON**” which contains latest and interesting news in the field of Gastroenterology.

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Looking forward to your valuable feedback

Best Regards,

Medical Team, Micro Labs Ltd

A Single Center study on Early vs. Delayed Laparoscopic Cholecystectomy for Acute Cholecystitis

Introduction:

Gallstone disease is one of the most frequently encountered diseases of the digestive tract and Acute Cholecystitis (AC) is a major complication of gallstones counting for 15%-26% of all complications¹. Nearly 1%-2% of individuals with gallstones become symptomatic each year, of these with symptomatic gallstones, 10% will develop AC. Women of age of 50 years are three times more likely to develop AC than men². Surgical treatment for acute Cholecystitis can be divided into emergency (early) cholecystectomy and elective (late) cholecystectomy. Surgical risk of cholecystectomy itself is relatively low, for low-risk patients, early surgery is ideal³. Laparoscopic cholecystectomy is well established as gold standard for cholelithiasis, due to improvement in laparoscopic skills, it has become common for management of acute Cholecystitis in many hospitals. Surgery within 4–7 days after onset of symptoms defined as early cholecystectomy and Delayed cholecystectomy is defined as a delay of surgery for 6–12 weeks after the initial admission⁴. The objective of this study is to determine which modality whether early or delayed laparoscopic cholecystectomy is the preferred timing in the treatment of acute cholecystitis.

Method:

A retrospective study was conducted in 300 patients affected by acute cholecystitis, in which acute cholecystitis was defined clinically by the presence of fever ($> 38^{\circ}\text{C}$), painful upper abdomen, and radiological signs of inflammation. A thorough medical history was obtained. For Every patient a thorough general physical examination and laboratory test were evaluated. Laparoscopic cholecystectomy was performed within 72 hours of admission for patients in the Early LC Group. Patients in the Delayed LC group were treated conservatively and discharged. They were readmitted 6-12 weeks later for elective laparoscopic surgery.

Results:

A total of 605 patients underwent laparoscopic cholecystectomy for acute cholecystitis. 386 patients underwent a delayed LC and 219 patients underwent Early LC. In a total of 300 patients, 150 patients in each group were selected by simple random sampling and were evaluated. The mean age in the Early LC group was 42.2 ± 12.25 and 42.18 ± 12.43 in the Delayed LC group. The mean operative time was 83.55 mins in the early group versus 60.72 mins in the delayed group and the mean duration of postoperative analgesic requirement was 2.38 ± 1.66 days in the earlier group and 3.54 ± 0.57 days in the delayed group. In total, 42 complications occurred early LC

are 19, Delayed LC are 23 and overall complication rate was 14%. The mean postoperative hospital stay was 1.98 days in the earlier group and 3.35 days in the delayed group and overall mortality was zero.

Table:1 Summary of Demographic and Clinical Data

Parameter	Early LC	Delayed LC
Age	42.2±12.25	42.18±12.43
Post-Operative Hospital Stay	1.98±1.05	3.35±0.95
Post-Operative Analgesics [†]	2.38±1.66	3.54±0.57
Total Conversions To Open Cholecystectomy	8	12
Total Complications	19	23

Discussion:

Early laparoscopic cholecystectomy was shown to be longer than delayed laparoscopic cholecystectomy in terms of operating time, although the timeline for managing acute cholecystitis is highly controversial, numerous reports, including meta-analyses, recommend early cholecystectomy even though the actual trend varies considerably⁵.

Conclusion:

The study concludes that early laparoscopic cholecystectomy within 72 hours of symptom onset showed both medical and economic benefits and as fewer intraoperative and postoperative complications, a relatively short post-operative hospital stays, and is thus less expensive

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Early laparoscopic cholecystectomy within 72 hours of symptom onset showed both medical and economic benefits and as fewer intraoperative and postoperative complications, a relatively short post-operative hospital stays, and is thus less expensive

Evaluate the Prevalence and Incidence of Acute/Chronic HEV Infection in IBD Patients Under Immunomodulatory Treatment

Introduction:

Management of inflammatory bowel disease (IBD) has evolved significantly, and treatment with immunomodulatory or biologic therapy, alone or in combination was recommended therapy of IBD, these medications may alter the patient's immune response and may increase the risk of opportunistic infections¹. If immunosuppressive agents involved in the treatment of IBD, it is vital to look for chronic infections and most importantly viral hepatitis. These to be investigated by guidelines before starting immunosuppressive treatment². Over recent years' incidence of hepatitis E virus (HEV)-infections in industrialized nations has been increasing and the patients suffering from inflammatory bowel diseases (IBD) may be more prone to transmission³. The underlying mechanism of IBD is defective response of the host immune system to gut microbiota and most of viral infections have been associated with exacerbation of IBD⁴. The objective of this study is to assess the prevalence and incidence of acute or chronic HEV infections in patients with IBD under treatment with immunomodulatory medications.

Method:

A retrospective, multicentre, observational study was conducted in patients over 18 years old with histologically proven IBD. During hospitalization, the following data like demographics, lifestyle characteristics comorbidities HEV risk factors, variables related to IBD as well as biological tests were collected and analysed. Anti-HEV IgG and IgM were detected by using the Wantai HEV IgG EIA and Wantai HEV IgM EIA kits.

Results:

A total of 488 patients were included, of which 327 (67%) patients had Crohn's disease and 161 (33%) ulcerative colitis. Patients were receiving the monoclonal antibodies to maintain remission for a median period of 49.1 ± 38.7 months. Infliximab (86.7%), vedolizumab (12.5%) and ustekinumab (0.8%) are the common monoclonal antibodies preferred. Liver enzymes abnormalities were noted for 45 patients (9.2%). In 24.4% of these cases, the patients had non-alcoholic steatohepatitis (NASH) associated with metabolic syndrome. HEV IgM was detected in 3 patients, but HEV RNA was undetectable in all patients. The HEV IgG seroprevalence rate was 14.2%. IgG-positive patients were older at sampling ($p = 0.01$) and IBD diagnosis ($p = 0.03$), had higher seafood consumption ($p = 0.01$) and higher doses of azathioprine ($p = 0.03$). Ileal and upper digestive tract involvement

was more frequent in IgG-positive patients ($p = 0.009$), and ileocolic involvement was more frequent in IgG-negative patients ($p = 0.01$). Under multivariate analysis, age > 50 years was associated with previous HEV infection.

Table:2 Summary of Demographic and Clinical Data

Parameter	HEV IgG-Negative(419 patients)	HEV IgG-Positive (69 patients)
Bilirubin (mg/dL)	8.41 ± 4.65	7.83 ± 4.35
Infliximab treatment	363 (86.22%)	60 (89.55%)
Post-Operative Analgesics'	2.38 ± 1.66	3.54 ± 0.57
Duration of monoclonal antibody treatment (years)	7.9 ± 6.3	6.7 ± 4.9
Remission	365 (86.7%)	56 (83.58%)

Discussion:

Due to different seroprevalence in the general population and the use of different HEV IgG assays focusing on IBD patients in other countries is difficult⁵. Study results suggest that IBD patients treated with immunomodulatory medications are not at risk of developing chronic hepatitis E and similar results were produced by other studies⁶

Conclusion:

The study concludes that n, acute or chronic HEV infection is uncommon in IBD patients who are being treated with immunomodulatory medications. HEV IgG seroprevalence is low in this population and especially older IBD patients

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The study concludes that n, acute or chronic HEV infection is uncommon in IBD patients who are being treated with immunomodulatory medications. HEV IgG seroprevalence is low in this population and especially older IBD patients

To Assess the Safety and Efficacy of Vascular decompression of the duodenum by infrarenal transposition of Superior mesenteric artery syndrome

Introduction:

Superior mesenteric artery syndrome (SMAS), also called mesenteric duodenal compression syndrome, Wilkie's syndrome, chronic duodenal ileus or cast syndrome, is a rare type of small bowel obstruction that occurs as a result of third part of the duodenum extrinsic compression in between the SMA and abdominal aorta (AA), due to narrowing of the space between them¹. Its incidence ranges between 0.005 and 0.3% while other reports mention a frequency of up to 2.4% and in patients with gastric bypass surgery, the reported prevalence is 0.6%². Conservative therapy should be given prior to surgical intervention, but has generally had poor success in adult cohorts. Laparoscopic duodenojejunostomy and Strong's procedures have been demonstrated to be safe and effective. The robotic platform combines the benefits of minimally invasive technique and unparalleled dissection, which may improve the safety and efficacy of Strong's procedure³. This study aims to discuss the safety and efficacy of vascular decompression of the duodenum by infrarenal transposition of SMA

Method:

A single-centre prospective study conducted in 45 patients with Wilkie's syndrome who underwent infrarenal transposition of the SMA. All the included patients had undergone a complete gastroenterological examination. The indications for the surgery were severe weight loss, uncontrolled upper abdominal pain, vomiting and other gastrointestinal (GI) symptoms that were severely debilitating to patients' daily lives. Current therapy of SMAS consists of medical and/or surgical treatment. Conservative therapy includes nutritional support, left-lateral decubitus positioning, prokinetic and anti-reflux medications and fluid resuscitation.

Results:

Patients were followed up in the first month after the surgery, then at 3, 6, 12, 24 and 48 months. In the early postoperative period, accelerated GI passage was observed in 12 patients (32.43%), with patients having more frequent bowel movements, which resolved in 2-3 weeks. The average weight gain in the first six months and one year were about 2.7 kg and 3.8 kg. In all patients, technical operative and clinical success were achieved. As shown in the figure 1, a patient had a lymphocele formed in the retroperitoneum, which was successfully drained by a CT-guided percutaneous pigtail catheter and another patient wanted a relaparotomy 3-month postoperatively due to adhesions that had formed around the duodenum leading to duodenal compression in the second segment

for which we performed adhesiolysis and omentoplasty. One patient, had a proximal SMA stenosis up to 60% where drug-eluting balloon percutaneous transluminal angioplasty (DEB PTA) Was performed successfully.

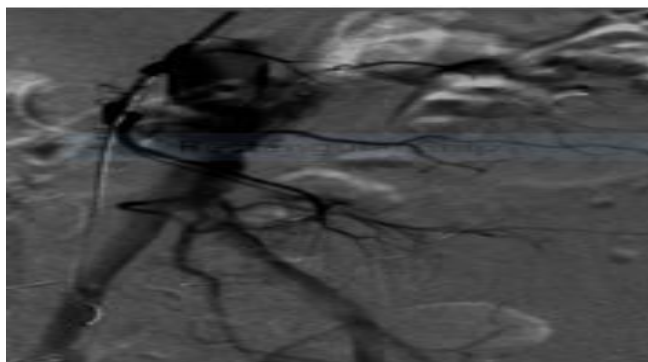
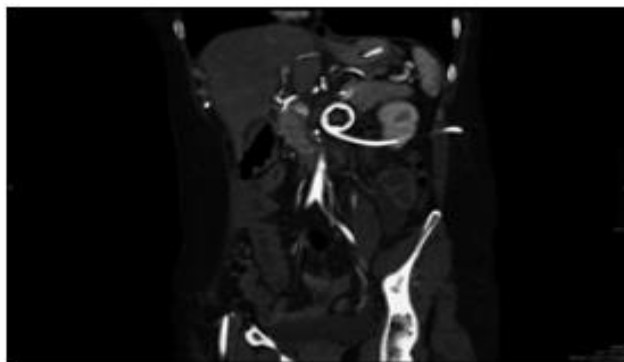


Figure:1 Percutaneous pigtail catheter drainage of lymphocele and angiography just before balloon dilatation of the superior mesenteric artery.

Discussion:

In this study, over the course of 10 years, we have performed 37 SMA transposition surgeries successfully with outstanding outcomes distinguished within regularly following up of our patients. Our study showed that the patients' health had improved vastly after the surgery, both psychologically and physically, without the persistence of symptoms and without major complications. Multidisciplinary teams, including gastroenterologists, general surgeons, vascular surgeons, and psychiatrists are necessary to diagnose and optimally treat this rare but potentially life-threatening syndrome.

Conclusion:

The study concludes that in case of failure of conservative therapy, infrarenal transposition of the SMA can be considered a safe and effective surgical option with more physiologically favourable outcomes comparable to gastrointestinal bypasses, especially in patients concurrently suffering from Nutcracker syndrome.

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Infrarenal transposition of the SMA can be considered a safe and feasible surgical option with more physiologically favourable outcomes.

Volvulus of the Cecum on Complete Common Mesentery: A Case Report

Introduction: Mesentery characterized by the persistence of an embryonic anatomical disposition secondary to an anomaly of rotation of the primitive umbilical loop thus constituting a meso common to the entire intestinal loop and an extremely short root of the mesentery¹. It is a common birth defect in the rotation of the digestive tract and a rare entity in adults². Common complication of complete common mesentery is the volvulus of the cecum¹. Cecal volvulus represents 25-40% of all colonic volvulus. Abdominal distension, constipation, nausea and vomiting are the common symptoms. Abdominal X-rays and computed tomography (CT) may help with diagnosis of this condition and recommended management is resection of mobile caecum. Cecal volvulus has clinical significance as it can lead to a number of serious complications including bowel obstruction, perforation and ischemia³. The objective of this study is to present a case of acute occlusion on a volvulus of the cecum on a complete common mesentery.

Case Study

A 38-year-old patient admitted for a follow-up of tumour of the metastatic thymus at the pulmonary level, appendectomy by a mc-burney, was presented to the emergency room for an occlusive syndrome which dates back 4 days. On examination found a patient with tachycardia at 110 BPM having a distended abdomen tympanic, digital rectal examination found an empty bulb. The biological assessment showed hyperleukocytosis with an increase in CRP.

An abdominal CT scan was performed which revealed that secondary digestive occlusion at the level of the FID without signs of digestive distress. As shown in the figure 2 Surgical exploration revealed cecal volvulus on a complete common mesentery procedure consisted of resection of the mobile colonic segment without anastomosis given the discovery of colonic pinworm infection with a pathological mucosa.

The patient evolved well postoperatively, he was declared discharged on D3 postoperatively. Inflammatory and congestive mucosa was seen in the anatomo-pathological study of the surgical specimen.

After 2 months, the restoration of continuity was done by first operative gesture without complication thereafter.

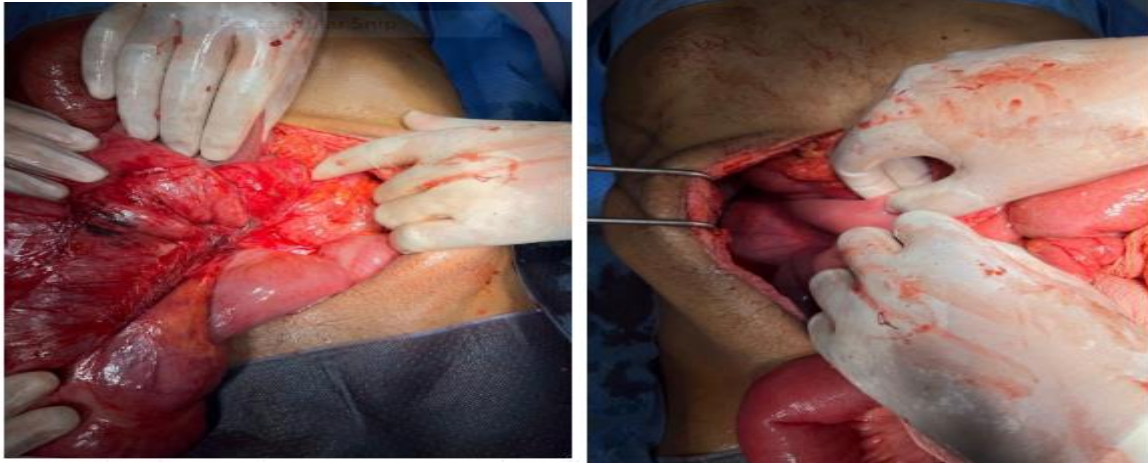


Figure:2 Pre-operative view & Intraoperative view of caecal volvulus

Discussion:

Treatment is basically surgical and the principle of treatment is reducing torsion, treat progressive complications and prevent recurrences. Conservative techniques are no longer indicated colonic volvulus on a complete common mesentery⁴. The treatment in this case is a moving of the right colon to the left, after having freed it from adhesions of LADD, and the hial and the mesentery to the right with a systematic appendectomy⁵.

Conclusion: The patient was operated having aided from a resection of the mobile segment of the colon and stoma, with a good postoperative evolution.

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The patient was operated having aided from a resection of the mobile segment of the colon and stoma, with a good postoperative evolution.



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