



SUMP SYNDROME – AN UNUSUAL COMPLICATION.

General Medicine

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ABSTRACT

It is a rare complication seen in pt. of side to side chole-docho-duodenostomy. Before ERCP chole-docho-duodenostomy was a common surgical procedure for management of biliary obstruction. Due to different cause of obstruction, the bile gets obstructed at different parts of bile duct, one of the site being distal part of bile duct. It forms a poorly drained reservoir, making this so called sump prone to accumulation of debris. These patients are prone to cholangitis. We present to you a 25yr male who came with history of severe icterus and pain in abdomen with MRCP s/o ? choledochal abscess, dilatation of CBD (approx 15mm with IHBR noted) along with air fluid level noted in CBD s/o Pneumobilia. Gall Bladder was partially distended. ERCP confirmed SUMP syndrome. Patient underwent Sphincterotomy and stenting through ERCP and post which he recovered well.

KEYWORDS:

INTRODUCTION

Sump syndrome is a rare complication of biliary enteric anastomosis after cholecystectomy.

After side-to-side CDD, the CBD between the anastomosis and the ampulla of Vater becomes a potential sump (a recess or reservoir serving as a drain for liquids).

Accumulation of debris, stones, and static bile occurs in this poorly drained reservoir and hence acts as a nidus for bacterial proliferation, thereby obstructing normal biliary drainage leading to complications like recurrent cholangitis, pancreatitis, or biliary obstruction.

CASE DESCRIPTION

A 25year, male, came to emergency with sharp epigastric pain radiating to right upper quadrant of abdomen, loss of appetite, fever, yellow discoloration of skin and sclera, recurrent vomiting. Patient had history of jaundice in childhood and he was operated for the same.

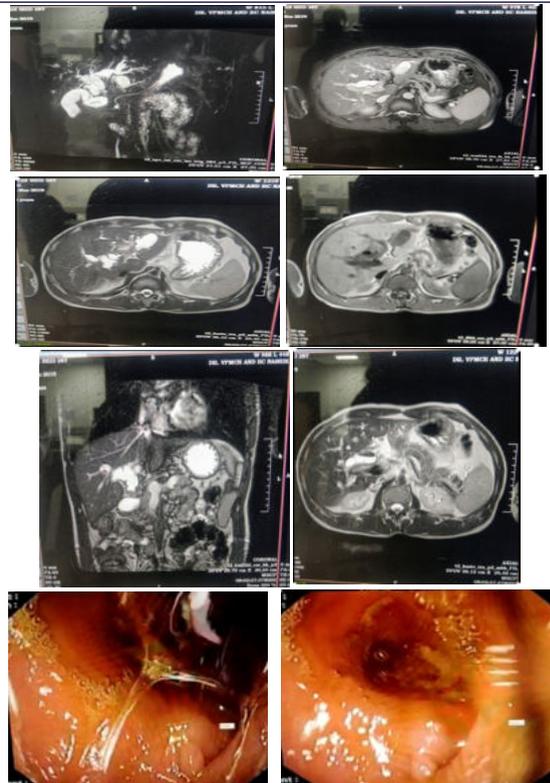
The vitals were significant with

- 1) High grade fever
- 2) Tachycardia (p- 106 bpm)
- 3) Hypotension (BP – 90/60)
- 4) Yellow discoloration of skin and sclera

Abdominal palpation had tenderness over the right upper quadrant. Rest of examination was within normal limits. Lab investigation showed raised TLC counts - 15000. raised bilirubin with in-direct more than direct. Elevated levels of alkaline phosphatase – 460. Mildly raised ALT and AST and normal amylase and lipase. MRCP s/o ? choledochal abscess, dilatation of CBD (approx 15mm with IHBR noted) along with air fluid level noted in CBD s/o Pneumobilia. Gall Bladder was partially distended. An ERCP confirmed SUMP SYNDROME.

Endoscopic examination of duodenum revealed a fistulous opening in D1 part of duodenum draining pus and bile. Air insufflation into this orifice induced distinct pneumobilia, where as contrast injection showed distal CBD revealed impaction of abundant debris and drainage of pus. A finding of ascending cholangitis in an endoscopic picture of filling defect in distal CBD led to diagnosis of SUMP SYNDROME.

Sphincterotomy and stenting was performed through ERCP. Patient was later given antibiotics cover and adequate hydration. After serial follow up his TLC counts and LFT along with jaundice improved.



DISCUSSION

A “sump” is defined as a covered cistern or reservoir. The term “sump syndrome” was coined after the observation of accumulated debris proximal to the papilla, in the distal bile duct reservoir of affected patients.

Before ERCP was discovered one of the common surgical used for biliary tract diseases was Choledochoduodenostomy, in which bile doesn't drain through the CBD.

So the part distal to CDD anastomosis, transformed into poorly draining anastomosis, making it sump, prone for accumulation of debris.

But since CDD is replaced by ERCP , incidence of Sump syndrome has been decreased.

Sump syndrome results from accumulation of calculi, debris , lithogenic bile , as well as reflux duodenal content in distal CBD leading to biliary or pancreatic complications.

Also reduced filling pressure as well as reduced peristalsis and drainage of the distal CBD caused by the upstream anastomosis play an important role in the pathophysiology of sump syndrome.

It can present with a variety of symptoms and clinical pictures such as recurrent pancreatitis, colicky pain, jaundice, and cholangitis.

Therefore, the diagnosis of sump syndrome is challenging because no characteristic clinical or laboratory finding is highly specific .

Sump syndrome can also be treated surgically by creating a Roux-en-Y hepaticojejunostomy besides performing a biliary sphincterotomy and extracting the debris from the CBD through ERCP

CONCLUSION

Sump syndrome should be included in differential diagnosis for patients who have childhood history of obstructive jaundice (biliary surgery) along with recent presentation of cholangitis, pneumobilia or pancreatitis.

Diagnosis is difficult in such cases , but with the help of Endoscopy, ERCP , this can be diagnosed as well as treated .

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