

CASE REPORT

'STENTOLITH': A Rare Cause Of Obstructive Jaundice

Ankit Vikas Patani^{1*}, Pritesh Atmaram Vasave², Divyang Dave³, Devendra Chaudhari⁴^{1,2,3}rd year resident, ³M.S.(Surgery), Additional Professor, ⁴M.S.(General Surgery),FMAS, Assistant Professor, Department of General Surgery, Government Medical College, Surat.

ABSTRACT

BACKGROUND: There are only few cases reported till date of de novo choledocholithiasis secondary to retained or forgotten common bile duct stent^{1,2,3}. A 45 years old female patient with chronic abdominal pain and progressive jaundice was investigated and found to have CBD stent in situ along with a large CBD calculus. Stent along with the calculus was removed by choledocholithotomy and choledochoduodenostomy made by open surgery. The stent acted as the nidus for lithogenesis for which the term 'stentolith' has been coined¹.

Key Words: Stentolith, Choledocholithiasis, Obstructive Jaundice, CBD stent

INTRODUCTION

Endoscopic sphincterotomy and CBD stenting is the widely accepted treatment modality for choledocholithiasis. Biliary stenting is performed either with plastic or metal stents. The mean duration of patency of stent is about 12 months^{2,3}. The studies recommend replacement or removal of stent at least by 3-6 months in order to avoid complications such as occlusion or migration of stent or cholangitis². Common Bile Duct obstruction by a foreign body such as endoclips (most common), silk ligature, Dormia basket, worms such as Ascariasis, fish bone is a rare cause of obstructive jaundice especially when it occurs due to a biliary stent on which de novo stones have formed¹. Hereby we report a case of obstructive jaundice due to de novo choledocholithiasis secondary to forgotten CBD stent.

CASE REPORT

A 45 years old female patient presented with chronic abdominal pain and gradually progressive jaundice since 1 year associated with pruritus and clay coloured stools since 3 months. She had undergone open cholecystectomy 10 years back and

an oral endoscopic procedure 5 years back. Patient was not aware of any stenting procedure done in the past. On Examination patient was deeply icteric with scratch marks present over the body. Abdominal Examination was grossly normal. Patient was admitted and investigated. Total Leucocyte Count was 15500/mm³, Alk. Phosphatase 1712 U/L, ALT 530 U/L, Bilirubin Total 5.1 mg/dl, Direct 4.9 mg/dl. X ray abdomen standing revealed linear opacity in the right upper quadrant corresponding to calcified forgotten CBD stent. Ultrasonography of abdomen revealed dilated CBD with 2.3 cm at porta and 0.8 cm at distal part along with CBD stent seen in situ. Mid and distal part filled with? sludge/ soft calculus. Central and peripheral IHBR were found dilated. Gall bladder was absent. On CT abdomen, CBD was found dilated with 22 mm at porta, 25 mm at mid part and 14 mm at distal part. CBD stent was present in-situ with proximal end at porta and distal end opening in duodenal loop. 3.8×1.9×1.8 cm³ soft calculus present in mid and distal CBD with dilated central and peripheral IHBR. Patient was further explored with a right para-median incision. Dense adhesions were found at gall bladder fossa. CBD and visible portions of hepatic ducts were found grossly dilated. Bile was aspirated from the dilated biliary system and sent for culture and antibiotic sensitivity. Retained CBD stent along with the soft calculus in multiple fragments was removed. Diamond shaped

**Corresponding Author:*

Dr. Ankit Patani,

401, Jay Mayurasan chs,

Devchand Nagar, Haji Bapu road,

Malad east, Mumbai 400097.

Email-Id: ankitpatani1464@gmail.com

Contact No: 9978962368

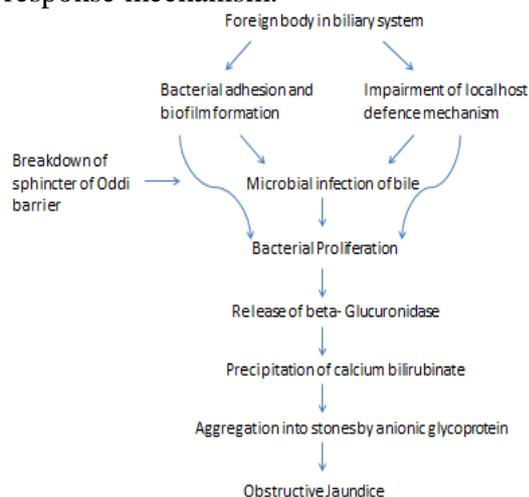
choledochoduodenostomy was made using PDS 3-0. Bile aspirated from the dilated biliary system was positive for Klebsiella Pneumoniae which was sensitive to Piperacillin+Tazobactam and Amikacin. Patient had uneventful recovery and discharged on 7th post-operative day with: TLC 8800/ mm³, ALP 572 U/L, ALT 122 U/L, Bilirubin Total 2.2 mg/dl, Direct 1.8mg/dl.

Figure1: Retained CBD stent along with fragments of secondary CBD calculus removed.



DISCUSSION

Endoprosthesis facilitates bile drainage and prevents stone impaction. But if forgotten one of the major complication is its clogging and obstruction. Sphincter of Oddi acts as a mechanical barrier. Breakdown of this barrier with Sphincterotomy or transpapillary insertion of an endoprosthesis results in microbial infection of bile by ascending infection. Foreign body in biliary system facilitates bacterial adhesion and biofilm formation². It also impairs local host defence and response mechanism.



In this case forgotten CBD stent acted as the nidus and with superadded infection it lead to de novo choledocholithiasis for which the term stentolith has been coined¹.

CONCLUSION

All patients with biliary stents must be informed about it and also related complications of long term endoprosthesis in situ¹. They should be instructed to contact the ERCP unit if symptoms of cholangitis develop. Setting up of a computerized ‘Stent Registry System’ under direct supervision of the surgeon is recommended so that the stents placed for various therapeutic procedures are not forgotten both by the patient as well as the surgeon. There must be a deadline for biliary stents in registry system for each patient². Patient education for timely follow-up and removal of the stents is the key to avoid potentially lethal complications¹.

REFERENCES

1. Bansal VK, Misra MC, Bhowate P, Kumar S et al. Laparoscopic Management of Common Bile Duct ‘Stentolith’. Trop Gastroenterology. 2009 Apr-Jun;30(2):95-96.
2. Mehmet Odabasi, Cem Arslan, Sami Akbulut, Hacı Hasan Abuoglu, Erkan Ozkan, Mehmet Kamil Yidiz et al. Long term effects of forgotten biliary stents: A case series and Literature Review. International Journal of Clinical and Experimental Medicine.2014;7(8):2045-2052.
3. Ang TL, Fock KM, Teo EK, Chua TS, Tan J. An audit of outcome of long term biliary stenting in treatment of CBD stones in a general hospital; J. Gastroenterology. 2006.Aug;41(8):765-771.