

The Forgotten *Stentolith* : A Rare Case Report

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Abstract:- Stentolith is a term coined to describe the de novo formation of gall stone encasing a biliary endoprosthesis or stent. A retained biliary stent maybe asymptomatic for a long time or have disastrous complications. We report the case of a 32 year old female patient having history of ERCP and stenting who presented 7 years later with complains of abdominal pain and tenderness in the right hypochondrium. Radiological investigations demonstrated the presence of a stentolith within the common bile duct. Open surgical exploration with a fundus first cholecystectomy and a choledochoduodenostomy was done along with the stent removal. Post-operative period was unremarkable with the patient being discharged on post-operative day 5. This case has been reported to highlight this rare complication of a retained biliary endoprosthesis and to emphasize the importance of a registry system to keep track of patients undergoing stenting and its timely removal.

Keywords:- *Stentolith, CBD calculi, GB calculi Cholecystectomy, ERCP, Sphincterotomy*

I. INTRODUCTION

A stentolith is a term coined in 2009, to describe the de novo formation of a lollipop or dumbbell shaped gall stone encasing a retained biliary stent. biliary stenting is done for multiple indications and should be removed after 4-6 weeks. A retained biliary stent may remain asymptomatic, or may cause symptoms due to its migration. Stentolith

formation is a rare complication. This article describes the case of a stentolith that was ‘SILENT’ for 7 years after which patient eventually developed symptoms which led to its discovery and prompt management.

II. CASE REPORT

We report a case of 32 year female patient who came to the surgical OPD of our tertiary care centre complaining of intermittent abdominal pain. She had history of ERCP and subsequent stenting for gall stones in the biliary tree 7 years ago. And had not had the stent removed once she experienced a relief in symptoms. Patient had no symptoms of obstructive jaundice or cholangitis. Per abdomen examination revealed minimal tenderness in the left hypochondrium. Biochemical and haematological studies were well with normal limits. An erect X-ray of the abdomen showed a vertical opaque shadow (figure A) present in the right paravertebral area. Ultrasonographic examination depicted a distended gall bladder with multiple calculi. It also showed the presence of a stent present inside the common bile duct. Contrast enhanced CT of the abdomen demonstrated the presence of a stent encased by a large gall stone, dilated CBD and cholelithiasis (figure B). An open surgical intervention was performed comprising of fundus first cholecystectomy, CBD exploration with stent removal and subsequent choledochoduodenostomy (figures C). Postoperative period was uneventful and the patient was discharged on 5th post-operative day.

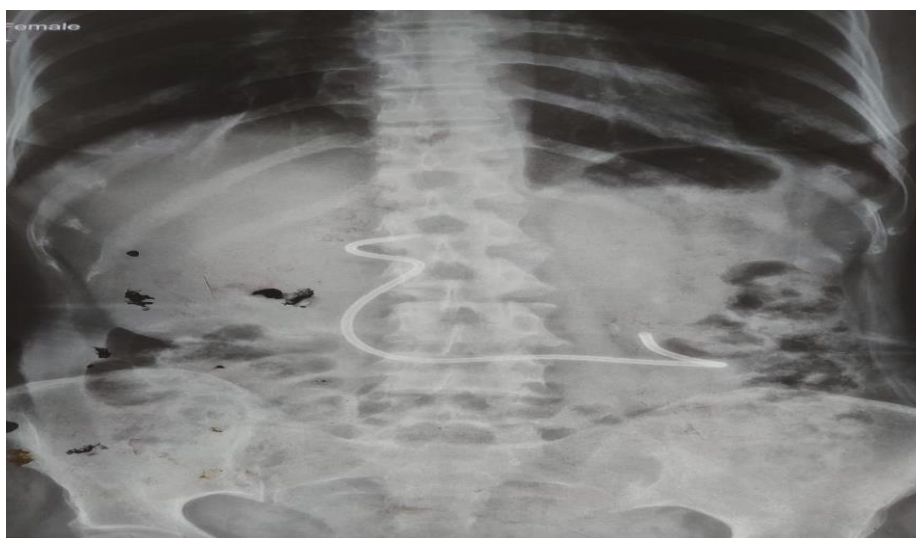


Fig. 1: X-ray abdomen erect showing opaque shadow of stent

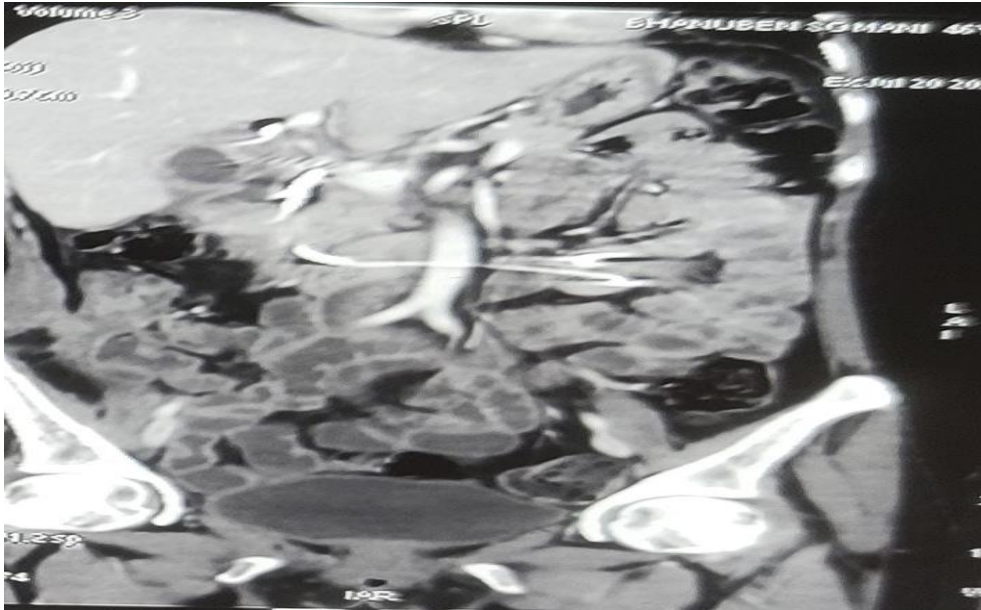


Fig. 2: CECT abdomen showing Stent in CBD



Fig. 3: Stent removed from the CBD

III. DISCUSSION

Choledocholithiasis is present in 10-15% with cholelithiasis. Majority of the cases are secondary CBD calculi having passed down from the gall bladder. The current mainstay of management of concurrent GB and CBD calculi is ERCP with stone clearance and endoscopic sphincterotomy with or without stenting, followed by laparoscopic cholecystectomy. For large calculi, open or laparoscopic exploration of the CBD is recommended. Temporary CBD stents have to be removed within 4-6 weeks of placement. A lot has been studied and written about biliary stents, but literature concerning the long term complications of a retained or forgotten biliary stent is limited. A retained stent maybe asymptomatic for years or have disastrous complications such as severe cholangitis, stent migration, stent occlusion or fracture, biliary stricture

or secondary biliary cirrhosis. Stentolith formation is a rare complication. Symptomatic patients usually present with abdominal pain, features of obstructive jaundice and/or cholangitis. These patients show deranged liver function tests and dilated common bile ducts on ultrasound. A biliary stent being a foreign body, acts as a nidus for stone formation. Sphincterotomy performed along with ERCP allows the retrograde flow of bacteria from the duodenum into the biliary tract leading to bacterial proliferation which secrete a beta-glucuronidase and subsequent biofilm formation. This causes the deposition of calcium bilirubinate on the stent forming a stentolith. Treatment options should be tailored to each patient. Wherever the facilities are available, endoscopic removal of stent is preferred. However open surgical intervention is suitable in patients having large stone size and proximal migration of stent.

IV. CONCLUSION

A retained biliary endoprosthesis may cause a myriad of symptoms and disastrous complications. Its ill effects should be explained to patients and a registry should be maintained of all people undergoing ERCP and stenting to avoid such incidents.

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- [4.] International Journal of Advanced Microbiology and Health Research ISSN: 2457-077X. Volume 2, Issue 4 (October-December 2018), PP. 16-20 Case Report Forgotten Biliary Stent: A Case Report Dr. Mohd Younus Shah¹, Dr. Faisal Younus Shah², Dr. Faizan Younis Shah³.