

## A Novel Approach Using Cholangioscope (SpyGlass-DS) Bite Forceps in Removing the Migrated Common Bile Duct Stent: Case Report

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### Abstract

Proximal or distal migration of a plastic biliary stent is uncommon, but its management can be a technical challenge to the pancreatobiliary endoscopist [1]. Retrieval of it requires experience with different endoscopic devices such as Dormia basket, snare, Soehendra stent retriever, and balloon [1].

**Keywords:** Cholangioscope; Bile Duct Stent; Migrated

### Introduction

In some patients, however, its successful endoscopic removal is impossible, especially with a concomitant narrowing of the distal common bile duct [2]. Surgical techniques are necessary in few cases [3]. The SpyBite biopsy forceps is a single-use device that passes through the 1.2-mm minimum working channel of the SpyScope catheter. The jaws of the forceps open to 4.1 mm (Figure 1), obtaining tissue adequate for histology in the majority of cases [4].

Our study highlights a novel approach in biliary stent retrieval using the SpyBite biopsy forceps



**Figure 1**

### Case Presentation

An obstructive Jaundice 65 years old female, ERCP was performed for her revealing tight distal CBD stricture with a stone more than one cm in size. A second ERCP using the SpyGlass was planned to remove the stone, visualize the CBD lesion and grasping a biopsy from the distal CBD stricture. The second ERCP done for her on 11/12/2019 (after five months from the first) revealing severe tight distal CBD stricture, small stone and biliary mud along with migrated CBD plastic stent. The sphincterotomy was widened then dilated with a papillary balloon up to 12mm in diameter. Then the balloon extraction was attempted to remove the small stones and the stent however it succeeded in removing the stones only. The stricture was very tight that it precluded the basket usage. The introduced SpyGlass visualized a very narrowed tight distal CBD with bizarre irregular hypertrophied wall that was biopsied with the SpyGlass bite forceps. Moreover, the SpyGlass scope was introduced into the biliary system removing the migrated stent (Figure 2). The SpyBite forceps was re-introduced again into the SpyGlass channel till it reached the lower end of the migrated stent. We succeeded in holding it from its distal end by the Spybite (Figure 3) and withdrew it till it came out of the papillary edge (Figure 4), Then finally taken up with the snare.

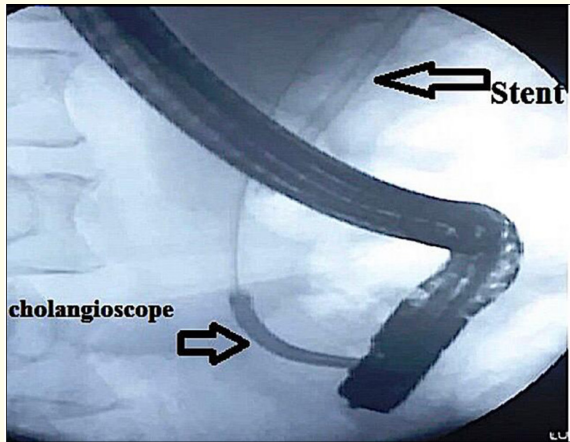


Figure 2

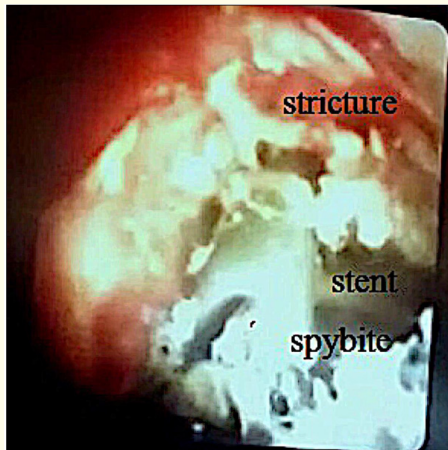


Figure 3

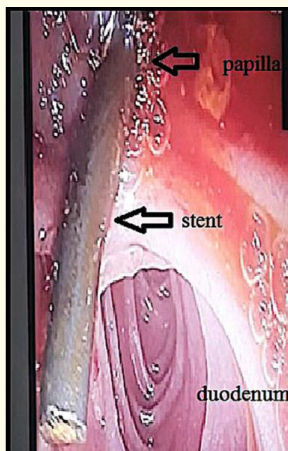


Figure 4

## Discussion

In this study we described a novel approach of retrieving a migrated biliary stent in a very tight distal CBD stricture using the SpyGlass bite forceps after the failure of other conventional retrieval methods. The cholangioscope aids in visualization of the stent and better catching it up with the forceps. Moreover, the time was less than using any other maneuvers even the expensive SpyGlass snare or basket as we used the SpyBite in taking the biopsy, then used it again in retrieving the stent. On the other hand, it was less money and time consuming in using the same instrument for two different tasks. In spite of the success of conventional methods of stent retrieval and its relative safety [1] we should admit its serious complications such as basket impaction. Using the Spybite carries no hazards as it is a kind of minimal invasive technique. Enhancements of the endoscope and specialized accessories are expected to expand the therapeutic role of direct POC [5].

## Conclusion

Our study highlights a novel approach in biliary stent retrieval using the SpyBite biopsy forceps in case of failure of other conventional methods. To our knowledge this is the first time to use the cholangioscope SpyBite forceps in that task.

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