Choledocholithiasis with Multiple Recurrences: How to End the Punishment of Sisyphus

Hiroyuki Isayama, M.D., Ph.D.
Department of Gastroenterology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

Introduction

Endoscopic management of common bile duct stones are standard procedure. Most cases are received the retraction of stones and cholecystectomy, and the reported recurrence rates are not so high. However, there are some cases who suffered recurrent cholangitis due to stone recurrence.

The reoccurrence of CBD stones after treatment

1. Types of procedures on the papilla

Pathogenesis of the CBD stones was mainly bacterial infection migrated from the duodenum. Therefore, prevention of the function of Oddi’s sphincter was important to prevent recurrent CBD stone formation. Yasuda I, et al reported the long-term follow up the cohorts of randomized controlled study compared Sphincterotomy (EST) with papillary balloon dilation (EPBD). The cumulative incidence of CBD stone recurrence was significantly lower in EPBD group, and concluded preserving the function of papillary sphincter may reduce the stone recurrence.

2. Status of gallbladder

We previously reported the result of long term follow study after EPBD. There were difference in the recurrence rate according to the status of gallbladder (GB). Remaining GB with stone may increase the stone recurrence. GB stones which were both already presented and newly developed may migrated into CBD.

3. Primary stones

The patients with primary stones may recurrent more frequently than the other causes of CBD stones. Most cases were already cholecystectomized and showed large diameter of CBD. In such cases were considered as high risk for frequently recurrence. The sphincter function was not good, either cholestasis and duodenum juice reflux may be occurred.
Treatment for recurrent CBD stone

1. Procedures on the papilla

Many cases were suffering from the frequently recurrent CBD stones showed papillary stenosis after EST. In such cases, bile juice outflow was not so good and simultaneous occurrence of duodenal juice reflux. Previously, additional EST with incision as large as possible to open the papillary orifice larger was performed, and this procedure was effective. However, recently we can perform EPLBD which was considered as safer procedure than additional EST.

2. Surgery

Cholecystectomy was recommended for the patients with GB stones after CBD stone retraction. Remaining GB stones may cause recurrent of CBD stones. Choledocho-jejunostomy was effective to manage recurrent CBD stones who was failed to manage by endoscopy or IVR procedures. However, the number of cases was not so many.

3. Pharmaceutical

Ursodeoxycholic acid was expected to prevent recurrent CBD stone, however, there was no strong evidence.

Discussion

Endoscopic treatment for recurrent CBD stones was not difficult and easy to be accepted by patients. Additional opening with balloon or additional EST on the papilla may reduce the recurrence of CBD stone. Surgical management was the final weapon for the recurrent biliary stones.

Conclusions

To reduce the frequency of CBD stone recurrence, additional opening the papilla was effective. However, before endoscopic procedure, we should define the high-risk cases for recurrence and give the information about long term prognosis.

References