Artifacts of the common bile duct caused by a duodenal metallic hemoclip on magnetic resonance cholangiopancreatography

Dae Bum Kim and Chang Nyol Paik

Department of Internal Medicine. St. Vincent’s Hospital. College of Medicine. The Catholic University of Korea. Suwon, Korea

CASE REPORT

A 73-year-old woman was referred for diffuse abdominal pain. Ten years before she had undergone a cholecystectomy for gallstones. An upper endoscopy showed a 0.4 cm sized polypoid lesion at the medial side of second duodenal section (Fig. 1A) confirmed as Brunner’s gland hyperplasia via endoscopic biopsy. A computed tomography (CT) showed mild dilatation of the common bile duct (CBD) suspicious of a radiolucent CBD stone. Subsequently, a magnetic resonance cholangiopancreatography (MRCP) was performed and revealed a 1.6 x 1.5 cm ovoid low signal intensity at the CBD (Fig. 1B). However, an endoscopic retrograde cholangiopancreatography (ERCP) showed no evidence of a stone or a mass in the CBD (Fig. 2A). Afterwards, we found that a metal hemoclip, which was used for bleeding control immediately after the initial endoscopic biopsy at initial admission, was attached (Fig. 2B). The MRCP image showed a markedly decreased signal intensity in the CBD which could be misread as a pathologic lesion due to the metal clip in the duodenum. Thus, the patient was diagnosed as a non-organic disease.

DISCUSSION

A MRCP is a non-invasive and highly sensitive diagnostic modality for pancreatobiliary lesions, which can replace the role of ERCP. However, metallic components in the body can cause decreased signal intensity on the MR image, and lead to misinterpretation of the images (1). Here, we present a case of a duodenal metal hemoclip that was mistaken for a pathological lesion in the CBD on MRCP. When reviewing MRCP cases, it is important to know if metal materials such as metal clips or coils have been inserted in order to avoid clinical misinterpretation and unnecessary invasive management.

REFERENCES