

An unusual and unpleasant experience with ERCP: nasal septum damage

Endoscopic retrograde cholangiopancreatography (ERCP) has evolved into a largely therapeutic procedure for the management of a variety of benign and malignant pancreaticobiliary disorders. Although the most commonly related adverse events include pancreatitis, bleeding, perforation, cholangitis, and cardiopulmonary issues [1–3], a range of rare and often underappreciated complications can occur. Here we report on a case of nasal septum damage caused by an endoscopic nasobiliary drain (ENBD).

A 77-year-old man presented to our gastroenterology department with complaints of jaundice, itching, and weight loss during the previous 3 months. Medical history was unremarkable. Results of physical examination were insignificant except for jaundice. Laboratory parameters showed increased levels of alanine aminotransferase of 271 U/L (reference range 10–49), aspartate aminotransferase 370 U/L (0–34), alkaline phosphatase 473 U/L (40–150), gamma-glutamyl transpeptidase 752 U/L (0–38), direct bilirubin 24 mg/dL (0–0.5), and total bilirubin 32.8 mg/dL (0.2–1.2).

Ultrasonography revealed dilated intrahepatic bile ducts and a normal common duct. Magnetic resonance cholangiopancreatography and contrast-enhanced computed tomography scan suggested a Bismuth–Corlette type II Klatskin tumor obstructing the common hepatic duct without major vascular involvement. Surgery was planned. However, as the patient's bilirubin levels were too high for surgery, a 7 Fr ENBD was placed via ERCP to achieve a rapid decrease in these levels. After 16 days, the patient showed damage to the membranous part of the nasal septum, where the catheter had been firmly



Fig. 1 Damage to the membranous nasal septum caused by a drainage catheter secured too tightly.

secured to the nasobiliary drain; the area had been hidden by a plaster at its exit from the nostril (● Fig. 1). The catheter was subsequently pulled out of position and withdrawn completely, and the lesion soon recovered.

Nasobiliary drainage catheters help the endoscopist by decompressing the biliary system, and provide effective and rapid treatment for obstructive jaundice, cholangitis, or management of postoperative bile leaks [4]. The nasobiliary tube is a continuous catheter that is placed after an ERCP using the Seldinger technique with a wire-guided system. The nasobiliary drain is secured to the nose after ERCP to keep it in place and this is commonly carried out by senior endoscopy nurses in our clinics, with attentive care and gentle hand motions. However, an ENBD catheter that is secured too tightly may cause nasal septum damage, as in our case, by impairing microvascular circulation, leading to local tissue necrosis. A nose complication caused by an ENBD at the exit of the nostril is extremely rare and may be overlooked. As a consequence, as well as showing the importance of

nursing care following ERCP, this case indicates that endoscopists should pay attention not only to the pancreaticobiliary region but also to different areas where other complications may occur.

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