

## Transnasal endoscopy to facilitate nasobiliary tube placement: a simple and safe technique to avoid injury to the endoscopist



**Fig. 1** The endoscope is passed transnasally and out of the mouth alongside the transorally positioned nasobiliary tube. (The light source was turned off to facilitate photograph.)



**Fig. 2** The proximal portion of the nasobiliary tube has been grasped with a basket (arrow).

Endoscopic nasobiliary tube placement was described 30 years ago [1]. The placement technique has not changed: after positioning the nasobiliary tube within the biliary tree, the duodenoscope is withdrawn, leaving the tube exiting the mouth; a transfer tube is passed transnasally; and finally, the endoscopist (or designee) passes his or her fingers into the patient's mouth to retrieve the transfer tube from the oropharynx to allow the nasobiliary tube to be transferred from mouth to nose. Placing one's fingers into the patient's mouth can be dangerous, since the uncooperative patient has a tendency to bite the doctor (or designee). Use of a bite block or mouthpiece offers some protection [2]. A new technique is described that avoids this risk during nasobiliary tube transfer.

An 83-year-old woman on long-term warfarin therapy was recently diagnosed with pancreatic head cancer. Because of worsening jaundice and acute abdominal pain, a computed tomography (CT) scan was performed, which showed hemobilia and biliary obstruction. Endoscopic retrograde cholangiopancreatography (ERCP) using moderate sedation showed blood emanating from the papillary orifice. Cholangiography showed a distal biliary stricture and filling defects consistent with clots. An expandable biliary stent was placed but without ensuing biliary drainage due to clots. A nasobiliary tube was placed intrahepatically but the transfer tube could not be introduced into either nare. A 5.4-mm endoscope (Olympus GIF XP-160, Olympus, Center Valley, Pennsylvania, USA) was passed trans-

nasally to just above the epiglottis, retroflexed, and passed alongside the orally placed nasobiliary tube out of the patient's mouth (► Fig. 1, ► Video 1).

### Video 1

The small caliber endoscope is passed transnasally. The endoscope is retroflexed and advanced alongside the nasobiliary tube which is positioned transorally. A basket which is passed through the endoscope is used to grasp the proximal end of the nasobiliary tube and the endoscope is withdrawn from mouth through the nose and then externally along with the nasobiliary tube.

A pediatric stone retrieval basket was used to grasp the proximal end of the nasobiliary tube (► Fig. 2, ► Video 1). The endoscope and tube were withdrawn from the patient without difficulty. Minimal self-limited nasal bleeding occurred (► Video 1).

Transnasal endoscopy for nasobiliary tube transfer is useful for rare instances when the transfer tube cannot be passed into the nares. More importantly, it avoids the potential for endoscopist injury.

**Competing interests:** None

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