

# Nasal Fossa Hemorrhage Mimicking a Post-Endoscopic Sphincterotomy Bleed

# UCTN

We report a patient with bleeding from an unusual arteriovenous fistula of the nasal fossa (see Figure 1), which was initially misdiagnosed as gastrointestinal bleeding following endoscopic sphincterotomy.

A 39-year-old woman underwent laparoscopic cholecystectomy and intraoperative endoscopic sphincterotomy for common bile duct stones. She developed modest bleeding (oozing) of the papilla, which stopped spontaneously within a few minutes. One hour after the cholecystectomy and the endoscopic procedure, the patient had a severe hematemesis. Emergency esophagogastroduodenoscopy revealed blood in the esophagus and stomach and a modest degree of bleeding at the site of the previous sphincterotomy, which was treated (and resolved) with the injection of 1 in 10 000 epinephrine. A “second-look” esophagogastroduodenoscopy once again showed blood in the stomach but this time found no oozing bleeding at the papilla.

Because the patient was showing signs of increasingly severe cardiovascular instability (red blood cell count  $1.65 \times 10^6/\mu\text{L}$ ; hemoglobin 5.0 g/dL), she was subjected to a third upper endoscopy, which revealed fresh red blood in the oropharynx as the endoscope was withdrawn. Rhinoscopy revealed a massive hemorrhage of the left nasal fossa which was treated with antero-posterior tamponage. Arteriography finally identified the arteriovenous fistula, allowing treatment by embolization of the right maxillary artery (Figure 2) and normalization of her vital parameters. After a few days, the patient was completely recovered and was discharged.

Endoscopic sphincterotomy is associated with a complication rate of 4–10% and a mortality rate of 0.1–0.3%; the incidence of bleeding complications ranges from 0.75% to 1.15% [1–3]. Because the interval between the endoscopic sphincterotomy and the hemorrhage led the attending physicians to believe that the endo-

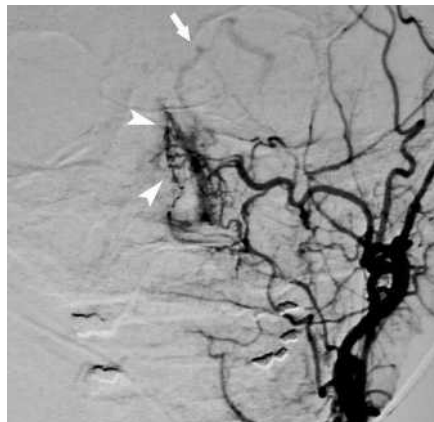


Figure 1 Selective angiography of the left external carotid artery revealed a hyperdynamic vascular circle of the nasal mucosa. This image (antero-posterior projection) is of the early arterial phase and shows mild dilatation of the internal maxillary artery, from which numerous branches end in a pathological circle of vessels in the ipsilateral nasal fossa (arrowheads). There is early filling of the superior ophthalmic vein (arrow), which then drains into the angular vein. This suggests the presence of an arteriovenous fistula.

sopic sphincterotomy was a possible cause of the bleeding, this case could have resulted in very significant legal consequences for the medical staff had the patient died.

**Competing interests:** None

Endoscopy\_UCTN\_Code\_CPL\_1AK\_2AC

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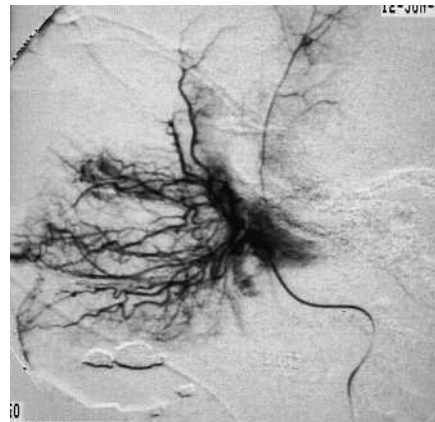


Figure 2 Super-selective angiography of the distal branches of left internal maxillary artery post-embolization. Note the normal appearance of the branches of the internal maxillary artery.

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Published online 9 March 2006  
DOI: 10.1055/s-2006-925088