

Refractory epistaxis treatment

Superselective endovascular embolization proved safe and effective in controlling idiopathic epistaxis, refractory to other maneuvers ¹⁾.

Indications

Epistaxis that has not responded to treatment including manual [compression](#), [nasal packing](#), local [vasoconstrictors](#), endoscopic cauterization or surgical ligation of [sphenopalatine artery](#).

Preoperative management

Verify [lab](#) values including [Platelet count](#), [BUN](#), [CR](#), [APTT](#), [PT/INR](#), and [Beta human chorionic gonadotropin](#) for females of reproductive age group. In [renal insufficiency](#), [diabetes](#), [CHF](#) etc., use diluted non-ionic [contrast agent](#) and pre-plan carefully to maintain contrast load to minimum.

Liquids only on morning of procedure. [NPO](#) (for $\approx$ 6 hours) when procedure performed under [general anesthesia](#).

Obtain [informed consent](#) for [angiography](#) and [embolization](#) of [ECA](#) branches. Ensure two I.V. lines inserted. Insert [Foley](#). The patient will be more comfortable and cooperative with an empty [bladder](#), if the procedure becomes prolonged.

Technique

Position patient on the neuro[angiography](#) table. Attach [pulse oximetry](#) and [ECG](#) leads for monitoring O2 saturation, [HR](#), [cardiac rhythm](#) [respiratory rate](#) and [BP](#).

A sheath is placed in the [femoral artery](#). A guide catheter is positioned in the proximal [ECA](#) on the side of bleeding or pathology. Angiography and roadmapping are performed through the guide catheter. Using [fluoroscopy](#) and road mapping, a [microcatheter](#) is advanced over the wire into the [sphenopalatine artery](#) branches. [Angiography](#) is performed through the [microcatheter](#) to ascertain appropriate positioning and to ensure no concerning collaterals with intracranial circulation exist. Contrast extravasation, [tumor blush](#) or [pseudoaneurysms](#) may be detected. A blank road map is obtained and embolization of the offending vessel commenced. [PVA](#) particles (250–300 mcgm) or [Onyx](#) (18 or 34) may be used. In case of Onyx, a DMSO compatible catheter is used. PVA may be cheaper and quicker to use.

Postoperative management

Post-op orders:

- Admit to [ICU](#) for overnight [observation](#). Typically, [nasal packing](#) is left intact overnight and removed

for inspection for bleeding the next day

- IV:0.9% **NS** + 20 meq **KCl** @ 150cc/hr X 2 hrs,then decrease to 100cc/hr,if patient is NPO.
- Activity: Keep right/left leg (whichever side was used for procedure) straight for 2 hrs (in case of Angioseal closure), or 6–8 hours (in case manual compression was applied), with HOB elevated 15o. This is achieved by placing a pillow under the patient's head. There should be no flexion in the femoral region. If more head elevation is required, place bed in reverse-**Trendelenburg position**.
- Checkgroins,DP's,vitals and neurochecks q 15min X 4,q 30 min X 4,then q hr.
- Advance diet as tolerated. Review/resume preprocedure medications (except oral hypoglycemics, until good PO intake established).

1)

Cohen JE, Moscovici S, Gomori JM, Eliashar R, Weinberger J, Itshayek E. Selective endovascular embolization for refractory idiopathic epistaxis is a safe and effective therapeutic option: technique, complications, and outcomes. J Clin Neurosci. 2012 May;19(5):687-90. doi: 10.1016/j.jocn.2011.08.019. Epub 2012 Feb 23. PubMed PMID: 22364712.

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