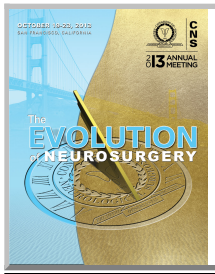

Comparison of Outcomes of Endoscopic Ligation and Endovascular Treatment of Sphenopalatine Artery for Epistaxis: A Five-year Series from a Single Institution

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Introduction

Epistaxis is one of the most common otolaryngologic emergencies. Approximately 90%1 of the time its origin is from the anterior septum in Little's area and is successfully treated with conservative treatment measures such as holding pressure, nasal hydration, short-term anterior nasal packing, or chemical cautery. In cases of more severe bleeding that is refractory to anterior packing, the source is frequently from a more prominent posterior vessel and frequently requires an alternative treatment. Traditional treatment for severe epistaxis includes placing an anterior/posterior nasal packing for 3-5 days. Success rate for this approach vary widely between 48% and 83%. Generally, endovascular embolization or endoscopic ligation of the sphenopalatine artery ligation (ESAL) have been used as salvage to an anterior/posterior nasal packing failure.

Methods

We performed a retrospective chart review of all patients that underwent either an ESAL or endovascular embolization for the treatment of severe epistaxis between January 1st, 2007 and Jan 1st, 2012. Patients that underwent ESAL or embolization for a nasal tumor or vascular malformation were excluded. The data included demographics, risk factors for epistaxis, time to treatment, length of hospitalization, efficacy, and complication rates.

Results

39 patients were treated with ESAL and 13 underwent embolization with success rates of 97% and 69% respectively. One patient treated with ESAL developed a post-operative sinusitis and another developed several days of facial pain. Among patients treated with embolization, complications included one intra-operative death and one case of severe persistent facial pain requiring narcotic analgesia for less than 10 days.

Conclusions

This is the largest single institution series of ESAL cases reported in the U.S. Surgical intervention by ESAL may be safer and more effective than embolization. Given the safety, efficacy, and cost effectiveness of early intervention, otolaryngologists should strongly consider ESAL as primary treatment for severe epistaxis.

References

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Learning Objectives

By the conclusion of this session, participants should be able to 1) Describe the importance having both endovascular and endoscopic tools in the treatment of severe epistaxis, 2) Discuss, in small groups, the indications of each technique and how to perform the techniques described, 3) Identify an effective treatment of severe epistaxis.