

The “two-point” technique for endoscopic sphenopalatine artery cauterization: is It effective and safe?

Dear Editor,

Variations of the sphenopalatine artery (SPA) in the sphenopalatine foramen may cause failure of the cauterization procedures in epistaxis patients^{1,2}. Two-point cauterization technique (one on sphenopalatine foramen and the other on the anterior wall of sphenoid sinus) was previously described¹. Aiming to assess the effectiveness and safety of the “two-point” endoscopic cauterization technique of the sphenopalatine artery, we conducted a retrospective analysis that included 37 patients (27 male, 10 female), who underwent transnasal endoscopic sphenopalatine artery cauterization for recurrent intractable epistaxis. According to the surgical technique used, the patients were divided into two groups: 15 treated by the classical middle meatal approach (Group 1) and 22 by the “two-point” technique (Group 2). All anti-coagulant and antiaggregant medications were discontinued at least two days before surgery. Besides the technique used, there were no changes of the overall treatment protocol during the study period. Outcome measures were hospitalization time, epistaxis control and presence of complications.

Mean patients' age was 40.3 and 43.5 years in group 1 and 2 respectively while mean hospitalization time for the two groups was 6.6 and 3.9 days respectively ($p < 0.05$). Rebleeding was seen in two patients (13%) in group 1, whereas in one patient (4.5%) in group 2 ($p > 0.05$). One patient in both groups described facial pain. We did not encounter any major complications.

In Figure 1 one can see the three main anatomical variations of the sphenopalatine region that might interfere with the classical cauterization procedure through the middle meatal approach. We found both the classical and “two-point” techniques to be similarly safe, whereas hospitalization time was lower in the two-point cauterization group. The failure rate of the procedure was similar to that previously reported³.

Even though the small sample size of the study and non-uniformity of groups are limitations for definitive conclusions, the two-point cauterization technique of the sphenopalatine artery is effective in controlling the bleeding and safe without any major complications. It is suitable for intractable recurrent epistaxis cases in order not to overlook any major branches of SPA where the bleeding vessel can not be visualized. Thus, the two-point technique seems to be more suitable when the site of bleeding is not known preoperatively, if the patient's history is unreliable, if nasal packing was placed elsewhere, or when there is no evidence of bleeding at the time of surgery. Further prospective studies are warranted to determine the exact efficacy of the technique.

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Conflict of interest

None.

Acknowledgment

Our sincere appreciation to Merve Evren for providing us and giving permission to use the illustration (Figure 1).

Keywords: Recurrent epistaxis, sphenopalatine artery, two-point cauterization

Midilli R, Gode S, Ozturk K

Ege University Medical School, Otolaryngology Department, Izmir, Turkey

Corresponding author: Sercan Gode, Ege Universitesi Hastanesi, Kulak Burun Boğaz Bolumu, Bornova, Izmir, Turkey, tel: +902323902600, fax: +902323902670, e-mail: sercangode@yahoo.com

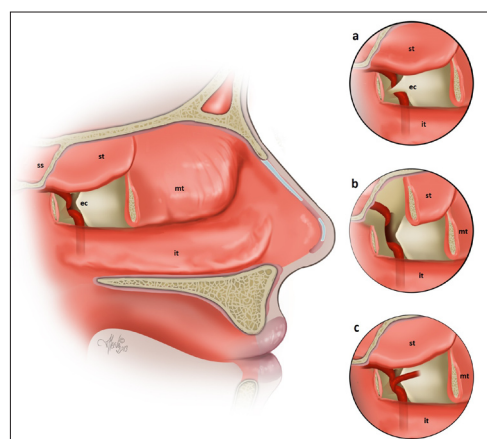


Figure 1: The variations of the sphenopalatine artery in the sphenopalatine foramen. a) Bony bridge separating the sphenopalatine foramen into two, b) Superior localization of the ramification point of the sphenopalatine artery, c) Multiple branches of sphenopalatine artery entering into the nasal cavity. St: superior turbinate, mt: middle turbinate, it: inferior turbinate, ss: sphenoid sinus, ec: ethmoidal crest of palatine bone.