

Endonasal endoscopy and posterior epistaxis*

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SUMMARY

The availability of a comprehensive range of endonasal telescopes facilitates systematic examination of the nasal cavity. Epistaxis is normally divided into anterior and posterior. Posterior epistaxis is diagnosed when anterior rhinoscopy fails to visualize anterior-located bleeding points. With the aid of endonasal endoscopy the exact location of bleeding points can be identified and diathermy applied under direct vision. Twenty-seven cases of the so-called posterior epistaxis were treated successfully by endonasal endoscopy. The technique is particularly useful during acute nose bleeds, it shortens hospital stay, and reduces the discomfort inflicted by the presence of nasal packing. The need for blood transfusion is reduced by using endonasal endoscopy in the acute stage of epistaxis.

Key words: endonasal endoscopy, posterior epistaxis

INTRODUCTION

Epistaxis is a common disease, approximately 10% of the normal population have suffered from a significant nose bleed some time in their life (Weiss, 1972). It may occur at any age. It is more common in male than female and is subject to seasonal variation (Stell, 1977). Bleeding is often severe, haemoglobin falls to 10 g or less in approximately one-third of patients, with a mortality rate in the region of 1% (Juselius, 1974). In general, the bleeding may be stopped by local cauterization (by chemical or by electrocoagulation), packing of the nose or nasopharynx arterial ligation or embolization of feeding vessels. Epistaxis is divided into anterior and posterior. Posterior epistaxis differs from anterior epistaxis only in the position in the nose, which makes direct access to the bleeding vessel very difficult. Traditionally, posterior epistaxis is managed by packing of the nose and or the nasopharynx. Packing of the nose may be done with gauze or with one the various inflatable balloons (Stell, 1977). Embolization (Merland, 1980) or arterial ligation of the feeding vessels are usually considered as last resorts (Stell, 1977; El-Silimy, 1985).

The best approach to posterior epistaxis is by isolating the bleeding point and local cauterization with chemicals or by electrocoagulation. This was not possible until recently, when some authors propagated the use of flexible nasopharyngoscopes (Robgstein, 1987; Premachandra, 1991) or nasal endoscopy (Wurman, 1988; McGary, 1991). Flexible nasopharyngoscopes are bulky and practically impossible to

use for examination of the middle meatus or nasal roof. Endonasal endoscopy by the use of Hopkins telescopes allow proper visualization, immediate control of bleeding, and shorten the duration of hospital stay.

MATERIAL AND METHOD

Twenty-seven patients with epistaxis were examined by the author while they were bleeding actively in the period from 1988 through 1991 and diagnosed to have posterior epistaxis. This collection does not represent a consecutive series. Patients who bleed after removal of nasal pack and those bleeding in spite of the presence of the pack were included. All patients underwent endonasal endoscopy performed by the author. A 2.7-mm straightforward 0°, forward-oblique 30°, and lateral 70°-telescopes were used to search for the site of bleeding. We used a suction catheter guide for the use with the telescope (Suction Catheter, 7Fr.) during our examination. Patients were given Pethiden^R prior to endonasal endoscopy. Topical surface anaesthesia in the form of 10% lignocaine with adrenaline 1:100,000 was used, because it was impossible to obtain cocaine. Continuous use of nasal suction catheter was required to maintain a clear field. The nasal cavity was examined thoroughly with the Hopkins telescopes. Once the bleeding point was located, the site was infiltrated with 1% lignocaine with 1:200,000 adrenaline using a 22- or 24-gauge spinal needle. The bleeding point was then cauterized using bipolar or unipolar diathermy with insulated nasal probes.

Patients were kept in the hospital for 24 h following diathermy for observation.

RESULTS

During the period from 1988 through 1991, 27 cases of posterior epistaxis were treated successfully with endonasal endoscopic technique. Male to female ratio was 13:11. Average age was 54 with the range of 22-76 years. The site of bleeding is shown in Table 1. Only two of our patients required insertion of nasal pack following endonasal endoscopy because bleeding point could not be identified clearly to allow for diathermy. These packs were placed at the bleeding sites. One patient had recurrent nasal bleeding 3 months later which required diathermy. None of our patients required blood transfusion.

Table 1 Sites of bleeding

No. of patients	location of bleeding vessel
16	posterior septum
3	middle meatus
2	inferior meatus
2	nasal floor
1	inferior turbinate
1	high anterior septum
2	not found

DISCUSSION

Posterior epistaxis, although uncommon, is not different from anterior epistaxis except for the location of bleeding point. Endonasal endoscopy allow identification of the bleeding point in most of the patients. The posterior septum was the commonest site in our cases in support with Shaheen's finding (Shaheen, 1975). Endoscopically-controlled diathermy was well tolerated by all patients. The endonasal endoscopy technique is simple and easy to perform. It is very cost-effective, because of short hospital stay and it carries less morbidity or mortality in comparison with conservative treatment by nasal pack or surgical ligation or

embolization of the feeding vessel. We do not recommend this technique for small children. We believe that endonasal endoscopic treatment for acute epistaxis is the most reliable method of reducing the number of beds occupied by epistaxis patients in hospitals. Patients who presented with packs in site, should have the packs removed and attempts to localize and diathermize the bleeding point should be carried out with the aid of endoscopes. We recommend that nasal endoscopy should be part of the training program of every Otolaryngologist. Practising endonasal endoscopy with acute epistaxis is not only a challenge, but also an opportunity to perfect one's personal endonasal endoscopic ability.

We hope that endonasal endoscopy will replace indiscriminate blind nasal packing in the hope of arresting posterior nasal haemorrhage by the practising Otolaryngologist.

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