

How to perform adequate nasal packing in posterior epistaxis with difficult access*

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SUMMARY

Inadequate nasal packing in the treatment of posterior epistaxis can result in an increase in patient morbidity and mortality, and also hospital expenditure. The presence of a septal spur or septal deviation anterior to the bleeding may prevent sufficient local pressure over the bleeding point with a ribbon gauze pack. A modified Jobson-Horne probe can be used to ensure a tight ribbon gauze application over the bleeding point behind the septal spur or deviation.

Key words: nasal packing, posterior epistaxis, septal spur, septal deviation, modified Jobson-Horne probe

INTRODUCTION

The management of epistaxis forms a significant workload for the ENT department. In England and Wales, each consultant admits an average of 10.2 patients over a three-month period with each patient having an average stay of 2.9 days (Kotecha et al., 1996). Most patients who are admitted are packed with ribbon gauze, foam packs or inflatable balloons. Ribbon gauze such as Bismuth Iodoform Parafin Paste (BIPP) is commonly used as first line treatment because they are cheap and effective. When bleeding persists despite posterior packing, radiological embolisation or surgical intervention such as septoplasty or arterial ligation may be required. Therefore, it is important to maximise the effectiveness of the ribbon gauze at the first attempt of the nasal packing.

Ribbon gauze nasal packs may fail to control bleeding if the bleeding site lies behind a septal spur (Figure 1) or septal deviation. There is insufficient pressure over the bleeding site due to the presence of these septal anomalies. One way to overcome this problem is to use a modified Jobson-Horne probe to generate adequate pressure over the bleeding point with the ribbon gauze.

PROCEDURE

A modified Jobson-Horne probe is fashioned by bending the wax remover at its neck to around 90 degrees (Figure 2). A strip of BIPP gauze is initially passed along the floor of the nasal cavity using Tilley's forceps. Holding the modified probe

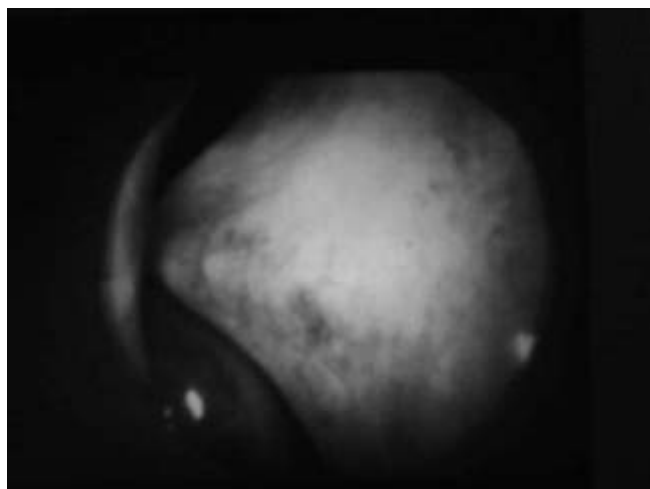


Figure 1. A septal spur.



Figure 2. A modified Jobson-Horne probe.

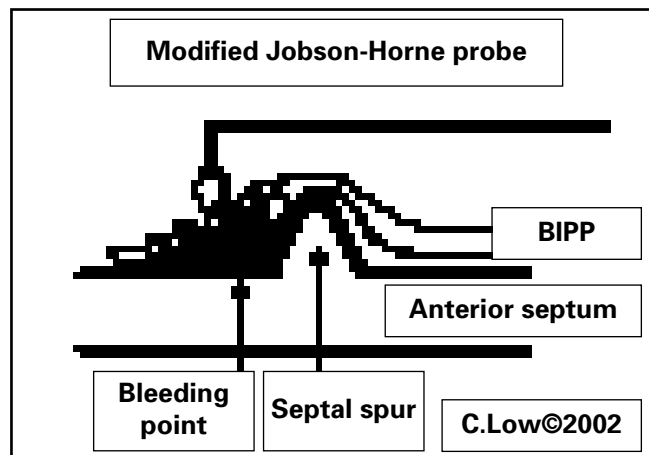


Figure 3. Multiple layers of ribbon gauze over the bleeding point.

like a pen, it is used to apply several layers of BIPP gauze over the bleeding point (Figure 3) behind the septal spur or deviation. The remainder of the BIPP gauze is layered within the nasal cavity in the conventional manner with Tilley's forceps. Other types of ribbon gauze can be used as an alternative.

DISCUSSION

Application of the first nasal pack is essential to minimise patient discomfort and to obviate the need for subsequent packing, surgical or radiological intervention. Significant failure rates of nasal packs with or without cautery have been quoted in the literature at 26.7% (Huang et al., 2002) and 38% (Klotz et al., 2002). The majority of nasal pack failure is due to posterior epistaxis. Although posterior epistaxis accounts for only 5% of all epistaxis (Viducich et al., 1995), half of them have associated hypertension, which increases anaesthetic risk if surgery is required. Nasal pack failure not only increases patient morbidity and mortality it has a considerable impact on already scarce hospital resources.

Adequate nasal packing over a bleeding point that lies obscured behind a septal spur or deviated septum can be difficult to achieve, even in the hands of an experienced clinician. This could be one reason why re-bleeding is more common in posterior epistaxis. Conventional ribbon gauze packs fail to arrest such bleeding because there is inadequate local pressure generated over the bleeding point due to the uneven surface of the septum. The modified Jobson-Horne probe can be used to generate maximum pressure over the bleeding point by filling in the otherwise deficient area with more layers of ribbon gauze (Figure 3).

The need for surgery was precluded in all our posterior epistaxis packed via this method. We had no complications with the use of this probe. Patients who were symptomatic with septal deviations underwent septoplasty electively. The use of a modified Jobson-Horne probe should be considered to maximise ribbon gauze efficacy in all posterior epistaxis with septal spurs or deviations.

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