

Use of a rectal snare to remove a hypopharyngeal haemangioma

M M ABO-KHATWA, S ABOUEL-ENIN, O KLIMACH*, J OSBORNE

Abstract

We describe in this case report a new technique for treatment of hypopharyngeal haemangioma, using the surgical diathermy snare. The snare was easily introduced through the direct laryngoscope, without any difficulties. The procedure was simple, rapid and involved minimal bleeding. We also discuss the histological types of haemangioma, clinical picture, radiological findings and other modalities of treatment.

Key words: Haemangioma; Larynx; Hypopharynx; Diathermy

Introduction

Laryngeal and hypopharyngeal haemangiomas are benign vascular tumours of unknown aetiology. Haemangiomas in these regions can present with globus pharyngeus symptoms, airway obstruction, dysphagia or recurrent bleeding.^{1,2}

A number of treatment options exist, depending on the size and position of the malformation. Laser therapy has been described in previous publications as the treatment of choice, using CO₂, potassium titanyl phosphate (KTP) or neodymium: yttrium–aluminium–garnet (Nd: YAG). Open surgery is indicated for severe cases.

We present a new surgical technique using a general surgical diathermy snare to simultaneously remove the haemangioma and cauterise its base.^{1,3}

Case report

A 55-year-old woman was referred to the ENT department by her general practitioner, with a foreign body sensation in the left side of her throat for two months. Her swallowing, voice and breathing remained normal.

The patient underwent a full ENT examination. Flexible nasendoscopy showed a purple, polypoidal mass arising from the left aryepiglottic fold and protruding into the left pyriform fossa. Neck palpation revealed no evidence of any lymphadenopathy.

Direct laryngoscopy was performed under general anaesthesia, revealing a pedunculated, apparently benign haemangioma attached to the lateral wall of the left aryepiglottic fold. No biopsies were taken because of the risk of bleeding from a feeding vessel.

A computed tomography scan of the neck revealed a 1 × 1 cm, poorly enhancing, left pyriform fossa mass, with no evidence of local invasion or any metastatic involvement in the neck. There was no significant arterial supply or rapid blood flow within the lesion. Radiography suggested a cavernous haemangioma.

A senior vascular surgeon was invited to consider using a surgical diathermy snare for the removal procedure. The

snare was applied to the stalk of the haemangioma (Figure 1). The lesion was removed and sent for histology (Figure 2). There was minimal bleeding, which was stopped by using the coagulation mode of the diathermy snare at 30 W (Figure 3).

The patient made an uneventful recovery. She was reviewed in the clinic two weeks and three months after the procedure. On both these occasions, she reported disappearance of her symptoms, and flexible nasendoscopy showed no recurrence of the polyp.

Histology confirmed that the lesion was a cavernous haemangioma (Figure 4).

Discussion

Laryngeal and hypopharyngeal haemangiomas are uncommon neoplasms which can cause dysphagia, recurrent bleeding and airway obstruction. Haemangiomas have been divided clinically into paediatric and adult types. The paediatric type most often presents as a subglottic mass in children. In adults, haemangiomas are usually found in the larynx and only rarely in the hypopharynx, and they can occur at any age. No skin lesions are present.¹

Histologically, haemangiomas are classified as either capillary or cavernous types. Capillary haemangiomas mainly affect children and consist of primitive endothelial canals corresponding to the size of the capillary bed. In cavernous haemangiomas, the canals are larger than the terminal vascular bed. Adult haemangiomas are usually of a cavernous or mixed type.^{1,2}

The diagnosis of these tumours is mainly by endoscopic examination. Computed tomography scanning is important to show the depth and extent of the tumour in the neck. Digital subtraction angiography is helpful in determining the feeding blood vessels.¹

Traditionally, treatment of these lesions required extensive open surgical procedures, during which patients often required numerous blood transfusions. Photocoagulation by laser ablation is an effective alternative therapy that is

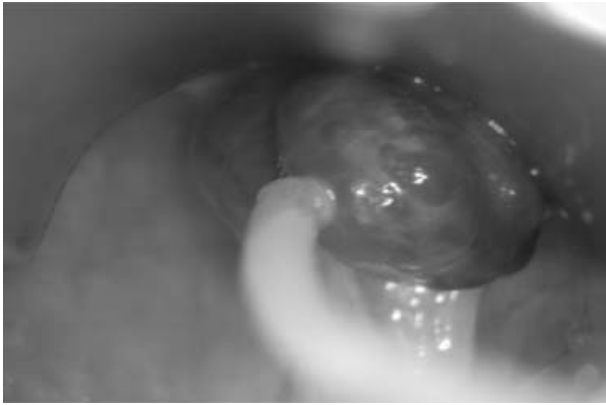


FIG. 1

The diathermy snare around the stalk of the polypoidal haemangioma, which is arising from the left aryepiglottic fold.



FIG. 2

The excised cavernous haemangioma, with a diameter of 0.5 cm.



FIG. 3

The surgical diathermy snare used for this technique.

minimally invasive and has few complications when used safely and correctly.²

Two types of laser have been used: the CO₂ laser (10 000 nm wavelength) and the Nd:YAG laser (1604 nm wavelength).⁴⁻⁶

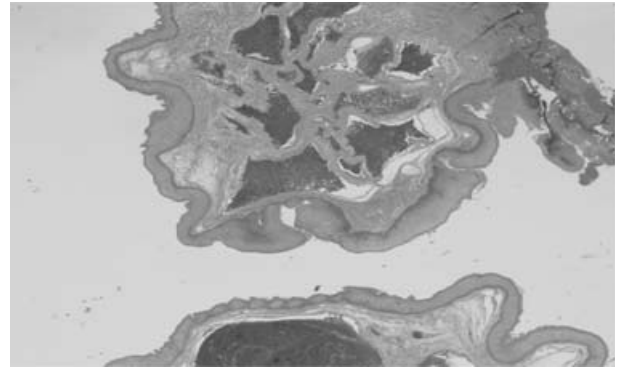


FIG. 4

Low-power view of the polyp showing the large vascular channels of the cavernous haemangioma (H&E; ×20).

Open surgery is indicated for severe cases, usually when there is an absolute airway obstruction that requires tracheotomy or when a large mass extends into the deep structures of the laryngeal or hypopharyngeal regions.^{2,3}

Endoscopic snare polypectomy is a technique used to remove colorectal polyps safely and with minimal bleeding. It has been reported that the incidence of bleeding following use of this technique for colorectal polyps is as low as 2 per cent.⁷⁻⁹

In our case, we excised the polyp from the left aryepiglottic fold using a surgical diathermy snare (Figure 3) through a direct laryngoscope. The base of the polyp was cauterised using the coagulation mode (30 W).

- **This case report describes the use of a surgical diathermy snare in the treatment of a cavernous haemangioma polyp of the hypopharynx**
- **The surgical diathermy snare was easily used through the direct laryngoscope, with minimal bleeding**
- **The clinical, histological and radiological findings are discussed, and other modalities of treatment are mentioned**

This technique is quite unique and, to our knowledge, has never before been used in the treatment of a laryngeal or hypopharyngeal haemangioma. We believe that the surgical diathermy snare can be easily used through a direct laryngoscope and has the benefits of simplicity, speed and minimal bleeding.

References

- 1 Katori H, Tsukuda M. Nd:YAG laser treatment for adult hypopharyngeal haemangioma. *J Laryngol Otol* 2004;**118**: 814-17
- 2 Baradach J, Panje W. Surgical management of large cavernous haemangioma. *Otolaryngol Head Neck Surg* 1981;**89**: 792-6
- 3 Lomeo P, McDonald J, Finneman J. Adult laryngeal haemangioma: Report of four cases. *Ear Nose Throat J* 2000; **79**:594-8
- 4 Yellin SA, Labruna A, Anand VK. Nd:YAG laser treatment for laryngeal and hypopharyngeal haemangioma: a new technique. *Ann Otol Rhinol Laryngol* 1996;**105**:510-15
- 5 Healy GB, Fearon B, French R, McGill T. Treatment of subglottic haemangioma with carbon dioxide laser. *Laryngoscope* 1980;**90**:809-13

- 6 McCaffrey TV, Cortese DA. Neodymium:YAG laser treatment of subglottic hemangioma. *Otolaryngol Head Neck Surg* 1986;**94**:382–4
- 7 Amano K, Seko A, Nagura K, Matsubara U, Shiroko J, Sugiyama H *et al.* A case of polypoid cavernous haemangioma of the sigmoid colon excised by colonoscopic polypectomy. *Gastroenterol Jpn* 1993;**28**:712–18
- 8 McAfee JH, Katon RM. Tiny snares prove safe and effective for removal of diminutive colorectal polyp. *Gastrointest Endosc* 1994;**40**:301–3
- 9 Brandimarte G, Tursi A. Endoscopic snare excision of large pedunculated colorectal polyps: a new, safe and effective technique. *Endoscopy* 2001;**33**:854–7

Address for correspondence:
Dr M M Abo-Khatwa,
ENT Department,
Glan Clwyd Hospital,
Bodelwyddan, North Wales LL18 5UJ,
Wales, UK.

E-mail: mmabokhatwa@yahoo.co.uk

Dr M M Abo-Khatwa takes responsibility for the integrity of the content of the paper.
Competing interests: None declared
