Juvenile nasopharyngeal angiofibromas are usually confined to boys in adolescent and early adulthood, and they originate characteristically in the posterior lateral wall of the nasopharynx. The extranasopharyngeal occurrence of these tumors is very rare. In this report we describe a case of extranasopharyngeal angiofibroma arising from the posterior pharyngeal wall of the left hypopharynx and discuss the operative management and differential diagnosis.

CASE REPORT

In August 2000, a 68-year-old man presented with a 6-month history of progressive foreign-body sensation in the throat and intermittent inspiratory stridor. He denied body weight loss, hemoptysis or any history of laryngeal trauma, laryngopharyngeal operation or endotracheal intubation. Endoscopic examination of the larynx and pharynx revealed a nonpulsatile, pink-grayish, polypoid mass arising from the posterior pharyngeal wall of the left hypopharynx (Fig. 1A). The nasopharynx, oropharynx and larynx were uninvolved, but the tumor mass was sometimes entrapped into the laryngeal inlet with inspiration. Under general anesthesia, this tumor mass was subsequently removed by the endoscopic CO₂ laser. The histologic diagnosis was an angiofibroma. Three-year follow-up found no evidence of tumor recurrence or post-operative complications.

DISCUSSION

Angiofibroma are histologically benign but potentially locally destructive vascular tumors occurring al-
most exclusively in adolescent boys. They are unencapsulated neoplasms composed of a rich vascular network within a fibrous stroma, and are relatively rare that represent only 0.05% of all head and neck neoplasms. Most angiofibromas originate in the posterior lateral wall of the nasopharynx; however, primary extranasopharyngeal occurrence of these tumors is sporadically reported. To date, approximately 60 cases of extranasopharyngeal angiofibromas have been reported in the English literature. Maxillary sinus is the most common site of involvement, followed by the nasal cavity, ethmoid sinus, sphenoid sinus, larynx and pterygomaxillary fissure. Only 1 case was confined to the posterior wall of hypopharynx.

The vast majority of the hypopharyngeal tumors are squamous cell carcinomas, which usually present as exophytic, ulcerative or infiltrative lesions with irregular, dark red surface, and are rarely pedunculated. However, an unusual presentation of squamous cell carcinoma of the hypopharynx as a pedunculated polypoid mass has sometimes been reported. Benign tumors of the hypopharynx are very rare but often pedunculated, the most common being fibrolipoma and leiomyoma. The case we present here reflected a 2.5 cm polypoid, glistening, pink-grayish appearance with a wide stalk originating from the posterior pharyngeal wall of left hypopharynx. We performed endoscopic excision because of the possibility of airway obstruction and malignancy.

Surgical excision remains the treatment of choice for extranasopharyngeal angiofibromas. A variety of surgical approaches are required and determined by the location, blood supply, size of the lesion and its deep extent. Angiofibromas have characteristic endothelial-lined vascular spaces, with little or no smooth muscle layers, and are devoid of an internal elastic lamina, which preclude vasoconstriction and contribute to brisk episodes.

**Fig. 1.** Endoscopic findings. (A) showing a nonpulsatile, pink-grayish, polypoid mass (asterisk) arising from the posterior pharyngeal wall of the left hypopharynx before operation; (B) showing smooth mucosa lining without a recurrent tumor at a 3-year follow-up.

**Fig. 2.** Histopathologic findings. (A) Lower-power view showing fibromyxomatous stroma harboring numerous blood vessels of various sizes and shapes, often with a stellate appearance (H&E stain, ×100); (B) Higher-power view showing that the stroma is dense, fibrous, and cellular, and is composed of both fine and coarse collagen fibers and endothelial-lined vascular channels (H&E stain, × 200).
of bleeding when traumatized. Notwithstanding this character, the feeding arteries within the stalk of the tumor mass almost contain a complete muscle wall, which has normal contractile ability and results in little bleeding after tumor excision from its pedicle. In our case of angiofibroma, we removed it en-bloc without difficulty with the endoscopic CO₂ laser since the tumor reflected a relatively obvious stalk, which could be excised across its base. Laser therapy has proven to be a very useful adjunct in the management of such a vascular neoplasm.

The nasopharyngeal angiofibroma seems to have a worse prognosis than extranasopharyngeal lesion. Inadequate surgical exposure and resection may probably count to result in higher recurrence rate in nasopharyngeal angiofibroma. In our case, the laryngopharynx was fully exposed via a transendoscopic approach before total tumor resection was performed. Although tumor recurrence is not expected, long-term follow-up is still needed.

REFERENCES