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Nasal lipoma

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Abstract
Several lipomas of the nasal cavity and paranasal sinus have previously been reported to date. We present a 21-year-old case with nasal lipoma situated on the left posterior of part of the nasal septum, operated on endoscopically. The present case is, to our knowledge, the first report on nasal lipoma in the adult.

Key words: Nose neoplasms; Lipoma

Introduction

Lipomas of the nasal cavity and paranasal sinus are rare. To date, to our knowledge, only 10 cases have previously been reported: seven cases in the infant in the nasal cavity, and another three cases in the paranasal cavity. The present case is the first report on nasal lipoma in the adult.

Case report

A 21-year-old female presented with a one-week history of left nasal obstruction to the Department of Otolaryngology, Nagasaki University School of Medicine. She had no history except for this symptom. An endoscopic examination revealed a gourd-shaped mass with normal mucosa, hanging from the posterior portion of the nasal septum inferolaterally to nasopharyngeal space (Figure 1). Computed tomography (CT) showed low density mass (Figure 2). T_1-weighted magnetic resonance (MR) imaging presented a high signal intensity (Figure 3) and T_2-weighted MR imaging demonstrated a low to iso-intensity. The mass was resected completely under local anaesthesia and the base was cauterized for haemostasis endoscopically in the operating theatre.

Histopathologically, the tumour was well circumscribed without a capsule. The tumour consisted of a proliferation of mature fat cells. It had fibrovascular septal tissue and entrapped nasal glands and ducts. The surface of the tumour was covered by intact nasal mucosa consisting of stratified columnar epithelium with focal erosion. Thick lymphoid cell infiltration was observed in the submucosal connective tissue beneath the epithelium. There were no atypical cells, mitoses nor lipoblasts suggesting malignancy (Figure 4). The histopathological diagnosis was lipoma.

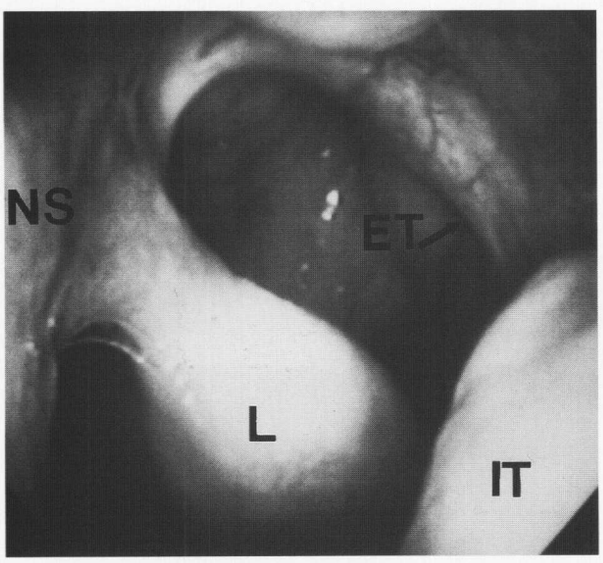

FIG. 1
Endoscopic view shows a mass lesion in left nasal cavity. The gourd-shaped mass originates with a stalk from the posterior portion of the nasal septum inferolaterally. ET pharyngeal orifice of eustachian tube; IT = inferior turbinate; L = lipoma; NS = nasal septum.

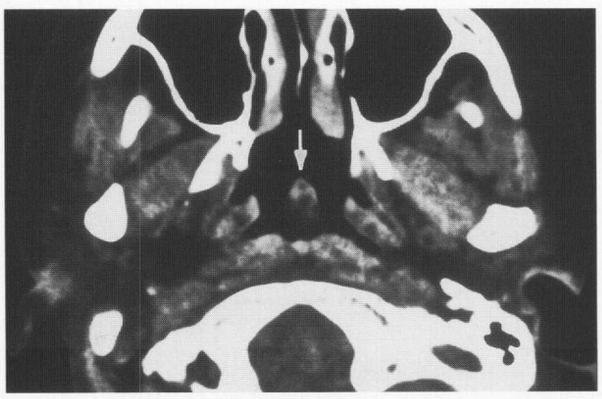

FIG. 2
Axial CT scan of head demonstrates soft tissue mass (white arrow), which arose from the posterior portion of the nasal septum inferolaterally, in the nasopharynx.

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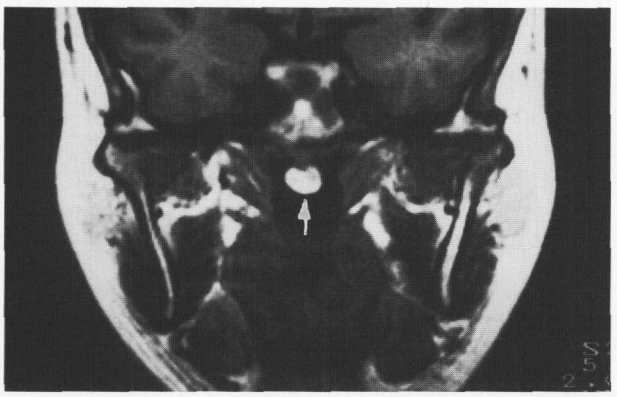

FIG. 3
Coronal T_1-weighted MR image reveals the lipoma as uniformly high signal (white arrow).

Discussion

Lipomas are benign, slow growing neoplasms composed of mature fat cells and may occur in almost any location in the body. The peak incidence is in the fifth and sixth decades of life and they are rare under the age of 20 years.[1] In the head and neck region, as elsewhere, the lipoma arises in subcutaneous or submucosal location.[2]

Despite their common occurrence in other anatomical regions where adipose tissue is present, lipomas of the nasal cavity and paranasal sinus are quite rare. This probably reflects the paucity of normal adipose tissue in these areas. In the literature review,[3–11] only 10 cases of lipoma in the nasal cavity and paranasal sinus were reported (Table I). Accordingly, to our knowlege, the present case is the first report of a nasal lipoma in an adult.

The most common symptoms in patients with tumours of the nasal cavity and paranasal sinus are unilateral nasal obstruction, facial or palatal swelling, facial pain, nasal discharge and epistaxis. The differential diagnosis of the masses in these sites generally includes osteoma, haemangioma, papilloma, angiofibroma and so on, although a variety of lesions may involve the nasal cavity and paranasal sinus.[12,13] As with all of these lesions, preoperative radiological assessment is imperative.

To gain information on the exact extension of lipoma, MR imaging proved to be very helpful.[14] Fatty tissue shows the highest signal intensity in T_1-weighted images and this enables the best visualization of anatomical structures. Additional information about the morphological structure can be achieved with T_2-weighted images such as of the associated liquid-filled cysts of lymphatic tissue. Another advantage of this sequence is the short scan time, which is an important issue for patients suffering from dyspnoea or hoarseness.

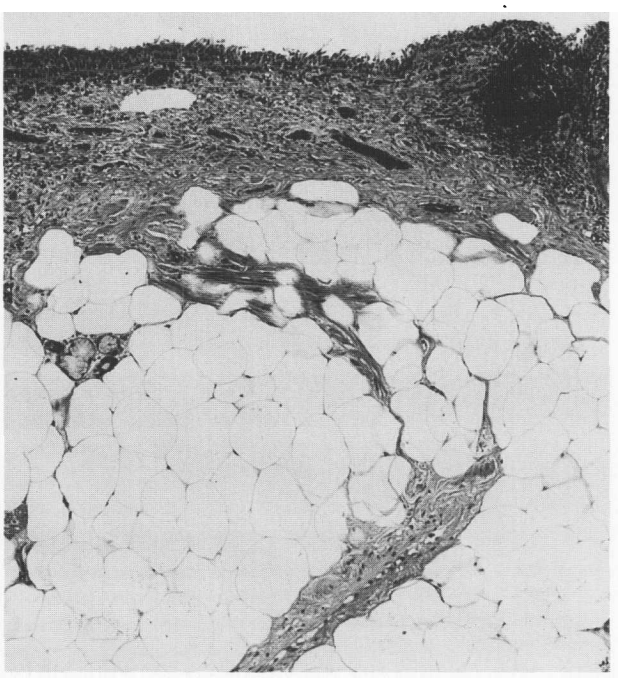

FIG. 4
Histopathologically, mature fat cells are proliferating under the submucosal area entrapping the nasal glands. There is no evidence of malignancy. Submucosal tissue has thick lymphoid cell infiltration (H & E; ×100).

Lipomas are extremely rare in the nasal cavity and paranasal sinus but they should be considered in the differential diagnosis of these lesions. As with lipomas of other locations, complete surgical excision is the treatment of choice and is curative for the nasal lipoma.

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TABLE I
LITERATURE REVIEW OF LIPOMAS OF THE NASAL CAVITY AND PARANASAL SINUS

Case No.	Authors	Age	Location
1	Goldstein[6] (1915)	42-year-old	Maxillary antrum
2	Silbernagel[7] (1938)	50-year-old	Maxillary antrum
3	Fu *et al.*[8] (1977)	34-year-old	Maxillary antrum
4	Preece *et al.*[9] (1988)	1-month-old	Nasal cavity (Left nostril)
5	Morgan *et al.*[10] (1990)	1-day-old	Nasal cavity (Left nostril)
6	Chmielik *et al.*[11] (1993)	7-month-old	Nasal cavity (Right)
7	Ducroz *et al.*[12] (1995)	Unknown (possible child)	Nasal cavity
8	Hollis *et al.*[13] (1996)	2-day-old	Nasal cavity (Left nostril)
9	Hollis *et al.*[13] (1996)	3-month-old	Nasal cavity (Right nostril)
10	Mishima *et al.*[14] (1999)	1-day-old	Nasal cavity (Right nostril)
11	Our report	21-year-old	Nasal cavity (Posterior portion of left nasal septum)

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