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Nasopharyngeal cyst
(Report of eight cases)

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Introduction

Nasopharyngeal cyst is an uncommon condition. The literature contains occasional case reports, but there has been no large series reported since that of Kully (1935). The symptoms ascribed to such cysts include post-nasal discharge (Canty and Dogra, 1978), sensation of a lump in the posterior part of the nose (Badrawy *et al.*, 1974), headache, neck stiffness and halitosis (Toomey, 1973). The optimal surgical treatment is controversial.

A series of eight cases is reported with reference to symptomatology and treatment.

Report of cases

Eight cases of nasopharyngeal cysts were seen in the department of Otolaryngology of Glasgow Royal Infirmary between 1963 and 1986. Six of the patients were men and two were women. The lesion was commonest in the fifth decade, with an age range of 37 to 71 years. Details of the cases are shown in Table I.

Nasal symptoms were present in only one case, a 43-year-old man who complained of snoring, nasal obstruction and nasal discharge. These symptoms resolved completely following marsupialisation of the cyst.

Two patients presented with hearing loss. Examination of the ears under anaesthetic in each case showed secretory otitis media. One of these patients continued to suffer recurrent secretory otitis media for 12 years following marsupialisation of the cyst. Examination of the post-nasal space under anaesthetic was performed on 4 occasions over this period, in conjunction with myringotomy and insertion of grommets. Although slight residual swelling of the roof of the nasopharynx was seen, there was no evidence of recurrent cyst formation.

In three cases the cyst came to light because of the demonstration of a soft-tissue mass on X-rays performed in the investigation of non ENT conditions. Two patients were referred to ENT examination as part of the investigation of lesions of cranial nerves III, IV and VI.

The cyst was visible on mirror examination in four of the eight patients. It appeared as a smooth bluish swelling in the roof of the nasopharynx. In each case the lesion was recognised clinically to be a cyst, although examination under anaesthetic and biopsy were considered advisable to rule out the possibility of malignancy.

Treatment consisted of marsupialisation in the three symptomatic cases. This appeared to be an effective treatment, since no case of recurrent cyst occurred in this series. In the patients without ENT symptoms biopsy alone was performed, since there was no indication for a more extensive procedure.

Histology of the excised material showed lymphoid tissue in the submucosa covered by respiratory epithelium, with mucous glands with a variable degree of squamous metaplasia. There was no dysplasia or neoplasia in any case.

Discussion

Nasopharyngeal cysts have been reported to cause occipital headache, neck stiffness, unpleasant taste in the mouth, halitosis (Toomey, 1973), post-nasal discharge (Canty and Dogra, 1978) and a sensation of a lump in the posterior part of the nose (Badrawy *et al.*, 1974). The association with secretory otitis media has previously been described (Parnes, 1976).

Mawson (1979) remarks that such cysts may be asymptomatic. The findings of the present series would tend to support this, five of the eight patients having no relevant symptoms. Only one patient in our series had nasal complaints. Two were suffering from secretory otitis media. One of these patients

TABLE I

Case no	Sex	Age	Presenting complaint	Method of diagnosis of nasopharyngeal cyst	Diagnosis
1 JW	Male	38	Deafness of right ear.	Mass seen on mirror examination.	Right secretory otitis media.
2 MW	Female	64	Neck pain.	Soft-tissue swelling seen on X-ray of cervical spine.	Rheumatoid arthritis.
3 TMcD	Female	49	Headache, diplopia.	Examination under anaesthetic of nasopharynx.	Cavernous sinus syndrome due to a granulomatous process.
4 HC	Male	44	No ENT complaint, right hemiplegia.	Soft-tissue swelling seen in nasopharynx on carotid angiogram	Cerebro-vascular accident.
5 MN	Male	43	Nasal obstruction, snoring, nasal discharge.	Examination under anaesthetic of nasopharynx.	Nasal obstruction due to nasopharyngeal cyst.
6 AG	Male	37	Headache.	Soft-tissue swelling of nasopharynx seen on skull X-ray.	Non-specific headache.
7 NC	Male	55	Right-sided deafness and tinnitus	Examination under anaesthetic of nasopharynx.	Right secretory otitis media, left cholesteatoma.
8 JC	Male	71	Diplopia.	Soft-tissue swelling of nasopharynx seen on X-ray.	Right abducens palsy unrelated to nasopharyngeal cyst.

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continued to have recurrent secretory otitis media over a twelve-year period following effective treatment of the cyst. This would suggest that the cyst was not a major factor in the aetiology of the middle ear effusion. Alternatively, the cyst may have initiated irreversible changes in the middle ear cleft, resulting in failure of the effusion to resolve following removal of the cyst.

Mawson (1979) recommends uncapping of the cyst and thorough aspiration of its contents. Badrawy *et al.* (1974) consider that such treatment is not a guarantee against recurrence, and advise complete excision through a transpalatal incision.

In the present series marsupialisation appeared to be adequate treatment. It resulted in complete resolution of symptoms in the patient who presented with nasal obstruction, discharge and snoring. In case 1 of this series the adequacy of marsupialisation was demonstrated at examination under anaesthetic on four occasions in the twelve years following surgery.

Summary

Eight cases of nasopharyngeal cyst are reviewed. Five were asymptomatic. Marsupialisation of the cyst provided adequate treatment in the three symptomatic cases.

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