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Mass in the post nasal space and acquired immune deficiency syndrome

ADRIAN DRAKE-LEE*, MARY STEVENSON†, IVOR DONALDSON*

Abstract
We report a case of previously undiagnosed acquired immunodeficiency syndrome (AIDS) who had a mass in the post-nasal space causing almost complete nasal obstruction. Histology showed both respiratory and squamous epithelium covering an active chronic inflammatory infiltrate. Lymphoma, Kaposi's sarcoma and infiltrative fungal sinusitis were excluded. There was no evidence of the common viruses associated with lesions in AIDS. Unlike adenoid hypertrophy, the lesion was an exuberant growth with an additional chronic inflammatory reaction due to ulceration of the surface epithelium.

Key words: Acquired Immunodeficiency Syndrome; Nasopharynx

Introduction

Patients may present for the first time to ENT surgeons with symptoms that can be the result of immunosuppression due to infection with human immunodeficiency virus (HIV). ENT related symptoms are common in this condition: 40 per cent of patients with AIDS will have head and neck problems at some time as the disease progresses (Marcusen and Sooy, 1985).

A significant minority of those with HIV develop a glandular fever-like illness with rash at the time of infection, the so-called 'seroconversion' illness (Gaines *et al.*, 1988). The remainder may manifest no symptoms. The disease can then be asymptomatic for a number of years, although as the immune system becomes progressively more impaired, lymphadenopathy and minor infections become apparent. Unusual, frequently recurrent or refractory viral infections, such as orolabial herpes or multidermatomal shingles may be seen. The development of molluscum contagiosum on the head and neck in an adult should alert the clinician to take a risk history. Fungal infections such as candidiasis and seborrhoeic dermatitis are also more common.

The Communicable Disease Centre (CDC) classification of HIV infection is probably most widely accepted. This comprises four stages: Stage IVD describes the occurrence of secondary neoplasia in AIDS, including Kaposi's sarcoma and lymphomas. We report a case of previously undiagnosed AIDS which presented to the ENT clinic with a potentially neoplastic mass in the post-nasal space.

Case report

A twenty-three year old single male presented to ENT outpatients with a four-year history of hearing loss and nasal obstruction. The hearing which was worse in the left ear, had gradually decreased over this time and there were no other ear symptoms. His nasal obstruction had progressively increased, with the right side being worse. He had occasional attacks of sneezing and a poor sense of smell. He gave a history of childhood perennial allergic rhinitis and still had asthma which was controlled by inhaled salbutamol and becotide.

On examination he had non-specific rhinitis and bilateral glue ear. Nasendoscopy showed a large mass in the post nasal space (Figure 1). The patient was questioned about his lifestyle and consented to undergo an HIV antibody test which was positive. His CD_4 lymphocyte count was profoundly depressed at 160×10^6 cells per litre. There were no other signs of AIDS-related illness.

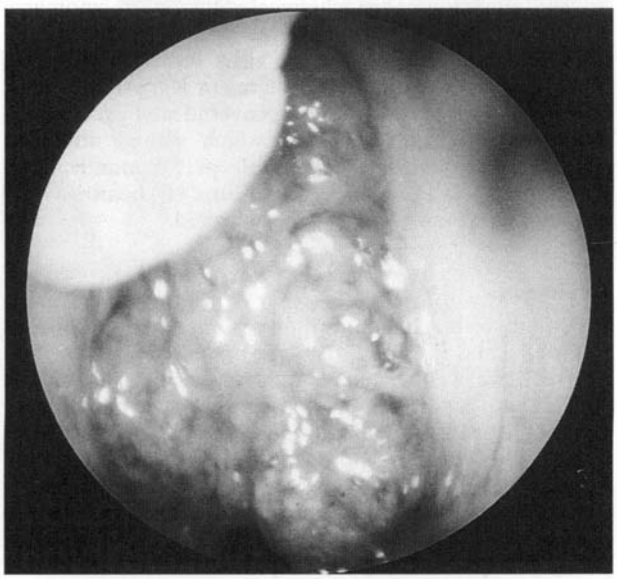

FIG. 1

This shows a large polypoidal mass in the post nasal viewed from the right side of the nose. It is almost completely obstructing the posterior choana.

From the Departments of Otolaryngology* and Genito-Urinary Medicine†, University Hospitals Birmingham NHS Trust, Birmingham, UK.
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FIG. 2

Computerized tomography confirms the clinical findings. There is no bone erosion but there is evidence of coexisting maxillary sinusitis.

The audiogram showed a conductive hearing loss of approximately forty decibels bilaterally. A CT scan of the head demonstrated the large mass in the post-nasal space and chronic mucosal changes in the sinuses (Figure 2). He was admitted to hospital for insertion of grommets and the mass was removed through the left side of nose. The nasal mucosa was biopsied on both sides and the maxillary antra were inspected endoscopically. The lining was congested and mucus was present on both sides.

Histology of the mass showed an epithelium with both respiratory and squamous elements covering an active chronic inflammatory infiltrate. Lymphoid follicles were present in the stroma and there were focal collections of giant cells associated with occasional ulceration of the epithelium. Immunohistochemical staining for cytomegalovirus and herpes simplex virus was negative. *In situ* hybridization for Epstein-Barr virus was also negative. There were no features of lymphoma or Kaposi's sarcoma.

Post-operatively the patient recovered well except for a discharge from the right ear which settled after the application of Gentisone HC ear drops. Six months later, his CD_4 count is 140×10^6 cells per litre. His hearing is still normal and his nose is no longer blocked.

Discussion

Patients with AIDS and rhinitis often get a regrowth of adenoid tissue (Olsen *et al.*, 1988). Nasal symptoms and glue ear are well documented in these patients (Desai, 1992). Desai reported 14 patients with mouth breathing of which nine had concomitant glue ear. The biopsy of the mass in the post-nasal space in these cases showed non-specific, reactive lymphoid hyperplasia. Adenoid and tonsil hypertrophy is often seen clinically in HIV infection and is easy to identify. This case had an exuberant growth in the post-nasal space which looked quite unlike adenoid tissue and was initially thought to be Kaposi's sarcoma or perhaps a lymphoma.

Radiology is often unhelpful in diagnosing these lesions since there is a higher incidence of adenopathy in these patients. Generalized lymphoid enlargement may be seen also in the tonsils, adenoids and the parotid radiographically (Chakeres *et al.*, 1993). Biopsy of the post-nasal space under direct vision often with the rigid endoscope is required if the lesion looks suspicious; the sinuses can also be inspected at the same time. In this case the mass was removed in one piece through the nose using an illuminated Killian's nasal speculum. Histology of the mass showed a chronic inflammatory reaction due to ulceration of the surface epithelium as well as lymphoid follicules. Investigations revealed no obvious infective aetiology, in particular the common viruses associated with lesions in AIDS were not detected. Pantaleo *et al.* (1993) stated that as the CD_4 count falls the lymphoid tissue, particularly the tonsils and adenoids are more likely to become chronically colonized with the HIV virus.

As treatment of AIDS improves and survival times increase, neoplasia may well become more common. Small cell lymphoma (Burkitt-like) is found in 20 per cent of head and neck lymphomas in AIDS (Finn, 1995), and Epstein-Barr virus (EBV) is well known to be causative of Burkitt's lymphoma. Finn found about half the post nasal lymphoma specimens in these AIDS patients contained EBV. The EBV is also the causative agent in oral hairy leukoplakia, one of the earliest and virtually pathognomonic features of AIDS (DeSouza *et al.*, 1989). Although patients with HIV disease often suffer nasal symptoms, it is important to make sure that the more serious conditions such as lymphoma and Kaposi's sarcoma are excluded. In addition, patients with AIDS may present with non-AIDS related conditions in the post-nasal space which include angiofibroma and squamous carcinoma.

The incidence of HIV and AIDS though relatively low, is increasing in the UK particularly in a few centres. Since both opportunistic infections and tumours can affect any organ, patients may present to virtually any hospital department. Clinicians should maintain a high index of suspicion in cases who present with unusual or unresponsive conditions, and elicit an appropriate lifestyle and sexual history.

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Address for correspondence:
Adrian Drake-Lee,
Queen Elizabeth Hospital,
Edgbaston,
Birmingham B15 2TH.
Fax: 0121 627 2291

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