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# Nasopharyngeal carcinoma in an HIV-positive patient causing severe morbidity and early death

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**Abstract**
A nasopharyngeal carcinoma was the first event in an otherwise symptom free HIV person. No reports of simultaneous nasopharyngeal carcinoma and HIV infection are known to us. A 46-year-homosexual man was admitted to the ENT department with a three week history of pain in the throat referred to the left ear. He was found to have an irregular tumour in the nasopharynx with a lymph node metastasis to the left side of the neck. The poor response to radiotherapy and the very aggressive progress after treatment raised suspicion of a co-existing disease process. The risk of sexually transmitted HIV was confirmed *post mortem* and could explain the rapid progression of the tumour. No anti-HIV treatment was given concurrently with radiotherapy.

**Key words: Nasopharyngeal neoplasms; Carcinoma, squamous cell; HIV infections; Morbidity.**

## Introduction

Squamous cell carcinoma may be the first indication of an immunodeficiency virus (HIV) infection (Pichler *et al.*, 1990). Malignant tumours such as Kaposi's sarcoma, non-Hodgkin's lymphoma and squamous cell carcinoma, may cause exaggerated morbidity in persons infected with HIV (Myskowski *et al.*, 1990; Pichler *et al.*, 1990).

## Case report

A 46-year-homosexual man was admitted to the ENT department with a three week history of pain in the throat referred to the left ear. Fourteen years earlier he had had a hepatitis B infection but had otherwise been healthy with no prior evidence of HIV infection until this episode. He was found to have an irregular tumour in the nasopharynx with a lymph node metastasis in the left side of the neck measuring 10 × 8 cm. The diagnosis was confirmed by nasopharyngeal currettage and fine-needle aspiration as a poorly differentiated squamous cell carcinoma. One month later he developed a swelling on the right side of the neck measuring 8 × 6 cm. X-ray examination of the chest showed no evidence of metastasis. Neither liver nor bone marrow was investigated. The neoplasm was graded $T_2$, $N_3$, $M_0$ stage IV (American Joint Committee, 1978). A six-week course of radiotherapy was given in 2.0 Gy fractions. After 11 fractions the nodes in the neck had decreased slightly respectively to 9 × 6 cm on the left and 6 × 4 cm on the right side and after 16 fractions to 7 × 5 cm and 5 × 3 cm respectively. After completion of his seven week course (68 Gy in 34 fractions) the neck nodes had decreased to 4 × 2 cm on both sides. During radiotherapy he had suffered from increasing fatigue and melancholy and had lost 17 kg due to pain on swallowing. Seven weeks after radiotherapy the left neck nodes had increased in size to 12 × 9 cm and inspection of the fauces revealed asymmetry indicating a residual nasopharyngeal tumour. Five months after the first admission he developed stridor and an emergency tracheostomy became necessary. He became apathetic and was unable to eat and refused any other treatment. He died six months after the first admission. A post-mortem biopsy and HIV-test revealed residual anaplastic carcinoma and a positive HIV-test. A post-mortem EBV (Epstein Barr Virus) titre showed a positive IgG and a negative IgM titre respectively, indicating an earlier infection. The haemoglobin on admission was 10.4 mmol/l and CT-scan showed a large tumour mass in the nasopharynx with local gland enlargement, there was no indication of bone destruction. Three months later his haemoglobin was 6.7 mmol/l.

## Discussion

The nasopharyngeal carcinoma was the first event in an otherwise symptom free HIV person. No reports of simultaneous nasopharyngeal carcinoma and HIV infection are known to us. The natural history of nasopharyngeal carcinomas can differ from a survival of 18 years without any therapy, to a very progressive disease with death within 18 months after appearance of the first symptoms despite radiotherapy (Choa, 1991; Cvitkovic *et al.*, 1991). The poorly differentiated squamous cell carcinomas tend to have a better prognosis than the well differentiated ones, because of their greater radiosensitivity, having a five-year survival of 52 per cent and 10 per cent respectively (Neel, 1986).

On admission this patient's general condition was very good. The poor response to radiotherapy and the very aggressive progress after treatment raised suspicion of a co-existing disease process. The risk of sexually transmitted HIV was confirmed *post mortem* and could explain the rapid progress of the tumour. No anti-HIV treatment was given concurrently with the radiotherapy.

When a patient unexpectedly responds poorly to radiotherapy a possible simultaneous HIV infection should be considered.

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