

Simultaneous occurrence of metastatic tonsillar squamous cell carcinoma and angioimmunoblastic T-cell lymphoma in a cervical lymph node

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Abstract

Non-Hodgkin's lymphoma (NHL) is a frequent head and neck malignancy. Squamous cell carcinoma of the tonsil is the second most common head and neck carcinoma. We report a case of a tonsillar carcinoma metastasis in an angioimmunoblastic-transformed lymph node. To our knowledge this is the first description and histopathological documentation of such a case in the literature.

Key words: Tonsillar neoplasms, secondary; Carcinoma, squamous cell; Lymphoma, non-Hodgkins; T-cell; Lymph nodes, neck

Introduction

Non-Hodgkin's lymphoma is a malignant tumour that develops from B- or T-lymphocytes of the lymphatic tissue. According to immunological and morphological criteria of the Kiel-classification (Lennert *et al.*, 1978; Lennert, 1986) different types are described.

Angioimmunoblastic lymphadenopathy with dysproteinaemia (AILD) is a T-cell NHL of low-grade malignancy. NHL is the second most common head and neck malignancy, surpassed only by squamous cell carcinoma (Hermans *et al.*, 1994).

Carcinoma of the tonsil is the second most common head and neck carcinoma (Guay and Lavertu, 1995; Chilla, 1996), the most common one being laryngeal carcinoma. More than 90 per cent of tonsil tumours are squamous cell carcinomas (Guay and Lavertu, 1995).

Second malignancies following NHL are described in the literature. Ellis and Lishner, (1993) reported the risk of second malignancies following treatment of NHL. They described the risk for myelodysplastic syndrome and acute non-lymphocytic leukaemia as 10- to 105-fold as compared to the general population. Zwirner and Grevers (1990) in a group of 52 NHL patients found four developing squamous cell carcinoma after a period of one up to 11 years.

Case report

A 64-year-old white male Caucasian with a seven-year history of NHL classified as angioimmunoblastic lymphadenopathy at stage IV of Ann Arbor Classification (Carbone *et al.*, 1971) presented with a two-month history of dysphagia and pain at the left side of the neck. AILD did not show any progression, so no specific therapy was performed and the patient was observed by periodical follow-up.

The patient was a smoker with chronic alcohol abuse but was in good general condition and routine laboratory values including immunoglobulins were normal. No dysproteinaemia was found.

Clinical examination of the oropharynx revealed an exophytic lesion at the left tonsillar fossa with infiltration of the left piriform sinus and the base of the tongue (Figure 1). On computed tomography (CT) scan an enlargement of the left tonsil was found but without signs of infiltration of the piriform sinus (Figure 2). During swallowing studies a widening of the left vallecula epiglottica was the only pathological finding. Transoral biopsy and histological

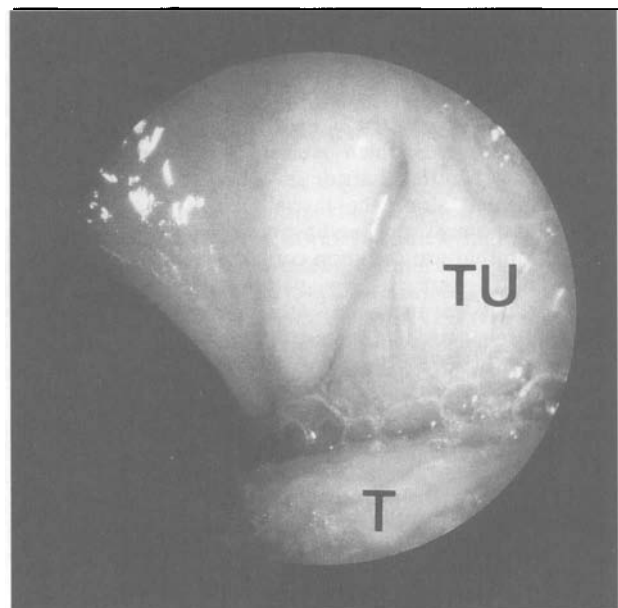


FIG. 1
SCC of the left tonsil, TU: tumour; T: tongue.

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FIG. 2

CT scan showing tumour tissue located in the left tonsil (▶). examination of the lesion of the left tonsil revealed an invasive squamous cell carcinoma. Bilaterally enlarged cervical lymph nodes were found by palpation and confirmed by ultrasonography and CT scan. Ultrasound

scan identified the largest lymphatic node of 1 cm maximum diameter at the left jugulodigastric angle suspicious of a metastatic infiltration.

Lymphadenectomy of the enlarged node was performed and histopathological evaluation revealed simultaneous infiltration of T-cell NHL (AILD) and squamous cell carcinoma (Figures 3a and 3b).

As the tumour showed a superficial type of spreading into the piriform sinus and operability was uncertain, the patient underwent a bilateral functional neck dissection followed by a definitive radiation therapy. Histopathological examination of the dissected blocks showed lymph nodes with the known transformation of the AILD but no further metastasis of the squamous cell carcinoma.

The post-operative period was uneventful and recovery satisfying. Radiation was tolerated well apart from mucositis and dermatitis. Now 12 months after receiving 70 Gy of radiation therapy the patient is in total remission regarding both the squamous cell carcinoma and AILD.

Discussion

Due to rare and unspecific symptoms patients with tonsillar carcinoma often present at late stages. According to Guay and Lavertu (1995) 67–77 per cent of patients have a tumour larger than 2 cm in diameter at time of diagnosis. The main aetiological factors, tobacco and alcohol, appear to have a synergistic effect (Chilla, 1996).

The established treatment at stage I and II tonsil cancer is either radiation or surgery whereas the combination of

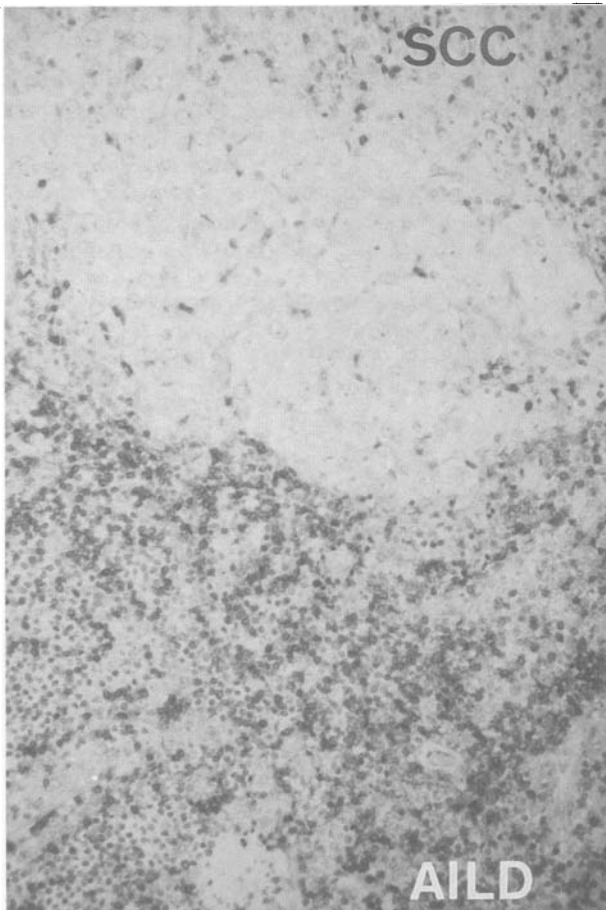


FIG. 3a
a) (H & E; × 20).

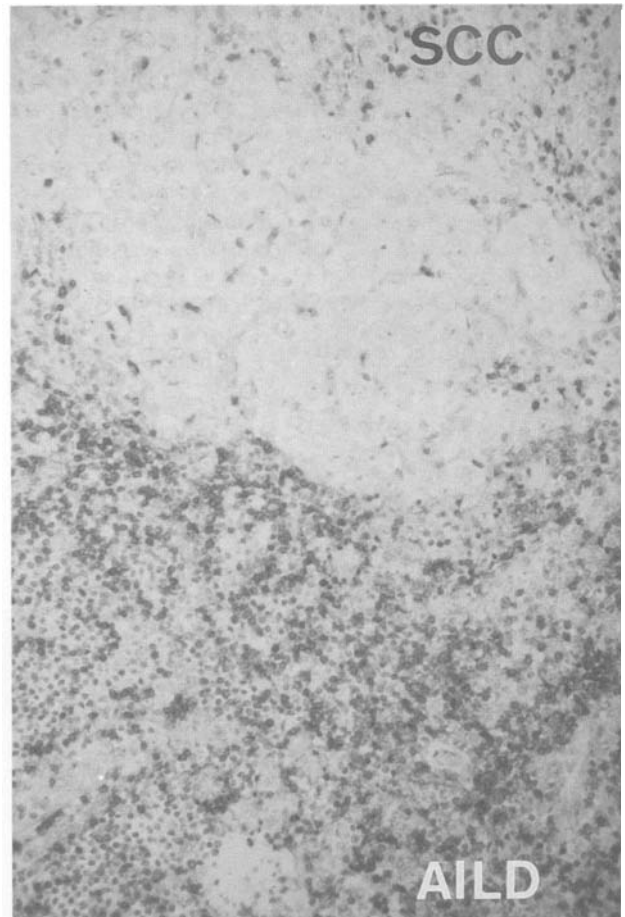


FIG. 3b
b) (staining for CD3; × 40).

FIG. 3

Histopathological picture of AILD transformed lymph node with SCC metastasis

both is the recommended therapy for stages III and IV (Spiro and Spiro, 1989).

AILD is now known to be a T-cell lymphoma, characterized by proliferation of small lymphocytes, atypical clear cells, immunoblasts, and high endothelial venules (Brunner and McKenna, 1994). Immunohistochemically, expanded aggregates of follicular dendritic reticulum cells (CD21+) are visible. The dominating physical findings are generalized lymphadenopathy, fever, weight loss, rash, and hepatosplenomegaly.

The most frequent laboratory findings are anaemia and hypergammaglobulinaemia. The proper treatment of AILD is watchful waiting and, if progression is detected, polychemotherapy and irradiation (Heinz and Hopfinger-Limberger, 1994).

In the case discussed here, the removed lymphatic node simultaneously showed the signs of AILD and a squamous cell carcinoma metastasis of the tonsillar carcinoma (Figures 3a and 3b).

Our therapy was a combination of the two therapeutic regimen: neck dissection and irradiation of the tonsil and the neck, with strict follow-up. As seen in our case, enlarged lymph nodes can show two kinds of histopathological transformation simultaneously.

As AILD is discussed to have immunodepressing effects patients should always be investigated for second malignancies. Enlarged lymph nodes, especially suddenly growing ones should be watched carefully, better examined by cytological fine needle puncture or by lymphadenectomy.

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