# T Cell Non-Hodgkin's Lymphoma of the External Auditory Canal

Araceli González Delgado, Francisco Argudo Marco, Nieves Sánchez Martínez, and Carlos Sprekelsen Gassó Servicio de Otorrinolaringología, Hospital General Universitario Reina Sofía, Murcia, Spain

Developing of primary lymphoma of the external auditory canal is excepcional. We describe a 53-year-old woman who developed a T cell non-Hodgkin's lymphoma and review literature. She was treated with surgery and chemotherapy and remains disease-free 10 months after the treatment.

Key words: Lymphoma. External auditory canal. T cell.

## Linfoma no hodgkiniano de célula T del conducto auditivo externo

El desarrollo de un linfoma primario en el meato auditivo externo es excepcional. Presentamos el caso de una mujer de 53 años, que desarrolló un linfoma no hodgkiniano de célula T y revisamos la literatura. Diez meses después del inicio del tratamiento (cirugía y quimioterapia) permanece libre de enfermedad.

Palabras clave: Linfoma. Conducto auditivo externo. Célula T.

### **INTRODUCTION**

A 53-year-old woman came to our centre due to nonspecific discomfort in the left ear and gradual hearing loss over a period of 1 year. In the otoscopy examination we observed a soft non-ulcerated mass implanted on the lower wall of the outside third of the external auditory canal (EAC). The tympanic membrane was whole. Several biopsies were performed and were all negative for malignancy. In the

Figure 1. A: mass obstructing the external auditory canal. B: enlarged detail of the non-ulcerated violet-coloured lesion.

Correspondence: Dra. A. González Delgado. Plaza Circular, 11, 5.° C. 30008 Murcia. España. E-mail: kotmwt@yahoo.es

Received June 13, 2007. Accepted for publication November 29, 2007. computerized tomography (CT) we noted a complete blockage of the EAC by a soft-tissue mass. There was no associated bone erosion. The lesion was completely resected. The pathology and immunohistochemistry studies concluded that it was an anaplastic, non-Hodgkin's T cell lymphoma, type Ki-1 (CD30 positive). In view of this result, the patient was referred to the haematology and medical oncology department, where the extension of her condition was examined, without any involvement being found in lymph nodes, medulla, or other organs. Treatment was completed with 4 sessions of chemotherapy (MEGA-CHOP); 10 months after the start of treatment, the patient is in complete remission.

#### DISCUSSION

The incidence of malignant tumours in the external ear is low; the most frequent are squamous cell carcinoma and adenocarcinoma.1 The development of a primary lymphoma in the external auditory meatus is exceptional: only 6 cases have been published so far in the literature. Lymphomas and leukaemias may affect the temporal bone



Figure 2. Coronal slice with a visible lesion in the external auditory canal.

more or less frequently 1 (16%-85%, depending on the series), but they generally affect the middle ear, the inner ear, and the mastoid or injures the VII and VIII cranial pairs.

The clinical presentation of primary lymphomas of the EAC is highly non-specific. There is generally earache of medium intensity, with minimal lesions on the meatus. After discarding other otorhinolaryngeal and maxillofacial involvements, it is treated for long periods as a recalcitrant otitis of the outer ear. As the lesion grows, there is a sensation of a blocked ear, transmission hearing loss, and earache may increase. It is not accompanied by otorrhea or otorrhagia. It is not associated with any general symptoms or with lymphoma B symptoms.

Diagnosis is by means of pathology immunohistochemistry studies. In most of the published cases, after performing several biopsies, the material was negative for malignancy,<sup>2,3</sup> which delayed the diagnosis until the complete excision of the lesion.

CT scans generally show a soft-tissue density mass limited to the external auditory meatus. Only one of the patients presented destruction of the temporal bone.

The 6 cases published are B cell lymphomas. Only one of them was a T cell lymphoma, which developed in the context

of chronic leukaemia, so it cannot be considered as a primary EAC tumour.

Differential diagnosis includes benign and malignant processes of the external auditory canal.

As for treatment, there is no established protocol; first of all due to the low number of cases. The variety in the classification of lymphomas has led to individualization of treatment plans. Surgery was applied as the first measure on half of the cases, before the definitive pathology diagnosis was obtained. In all of the published cases, treatment was completed with chemotherapy and/or radiation therapy depending on the nature of the lymphoma.

The prognosis varies depending on the type of lymphoma and the general condition of the patient prior to diagnosis. The case discussed here had a poor prognosis. Nonetheless,, our patient is in full remission 10 months after completing treatment.

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