

Case Reports

Non-Hodgkin's Lymphoma of the Tongue: a Case Report

A. Piattelli,^{1,2} L. Di Alberti^{1,2} and L. Artese³

¹Dental School, University of Chieti, Italy; ²Eastman Dental Institute, University of London, London, U.K.; and ³Department of Pathology, University of Chieti, Italy

Oral manifestations are present in about 3–5% of cases of non-Hodgkin's lymphoma (NHL) and oral lesions are only rarely the initial manifestations of NHL. A case is presented of an 80-year-old patient with a NHL of the tongue, without visceral or lymph node involvement. The diagnosis of NHL can be made only by biopsy. The prognosis of NHL seems to be related to the tumour stage, tumour aggressiveness and response to treatment: the oral lesions appear to respond quite well to irradiation.
Copyright © 1996 Elsevier Science Ltd

Keywords: non-Hodgkin's lymphoma, lymphoma, tongue

Oral Oncol, Eur J Cancer, Vol. 32B, No. 3, pp. 207–209, 1996.

INTRODUCTION

Lymphomas form a group of uncommon solid malignant tumours with a wide spectrum of clinical and pathological features.

About 25% of non-Hodgkin's lymphomas (NHL) are of extranodal origin: common sites are the gastrointestinal tract (especially the stomach), pharynx, thyroid and skin [1]. Oral manifestations are seen in 3–5% of cases of NHL [1]. Location of oral lymphomas is more frequent in masticatory mucosa than in movable mucosa; the lingual and buccal mucosa are rarely involved [2], whereas the gingival vestibule and Waldeyer's ring seem to be the most frequent site of occurrence [2]. Extranodal NHL represented 0.2% of the material submitted for diagnosis in a 33-year period at the Department of Oral Pathology of the University of Utrecht [3]. Extranodal NHL is one of the most common non-epithelial malignancies of the head and neck region, but NHL presenting with oral symptoms are fairly uncommon [1, 4, 5], and oral lesions are only rarely the initial manifestation of lymphomas.

The aim of this paper is to report a case of a NHL presenting as a tongue mass.

CASE REPORT

An 80-year-old male patient presented in a ENT clinic with a mild discomfort in the throat; an oral examination revealed the presence of an ulcerated lesion in the left margin of the tongue (Fig. 1). The mass was hard in consistency, was



Fig. 1. An ulcerated mass is present on the left margin of the tongue.

covered by non-ulcerated mucosa and measured about 4 cm in diameter. No lymph nodes were clinically apparent.

A biopsy revealed the presence of neoplastic lymphocytes infiltrating the tissues, particularly the epithelium. The neoplastic cells were large, and had pleomorphic nuclei. In some fields centroblastic elements were found in close connection with centrocytic elements (Fig. 2). At higher magnifications it was possible to see that most of the cells presented with cleaved nuclei: it was also possible to see cells with regular nuclei and nucleoli (Figs 3 and 4). An immunoperoxidase stain showed the presence of many CD-20 positive cells (Fig. 5). A thoracic and abdominal CAT scan was carried out: no visceral or lymph-node involvement was present. A diagnosis of primary B-cell centrocytic-centroblastic NHL of

Correspondence to A. Piattelli.

Received 16 Mar. 1995; provisionally accepted 30 Aug. 1995; revised manuscript received 6 Oct. 1995.

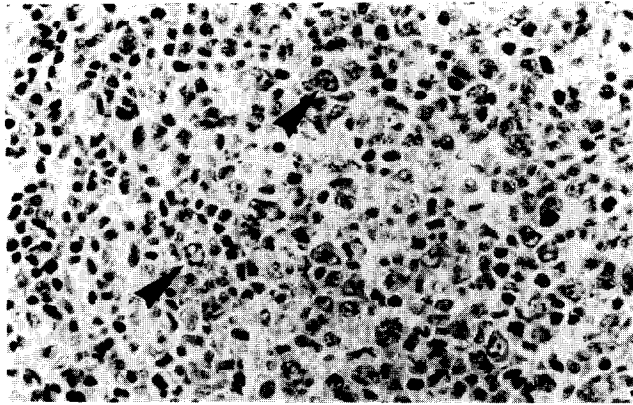


Fig. 2. Centroblastic elements (upper arrow) are present near centrocytic elements (lower arrow). Giemsa stain. $\times 25$.

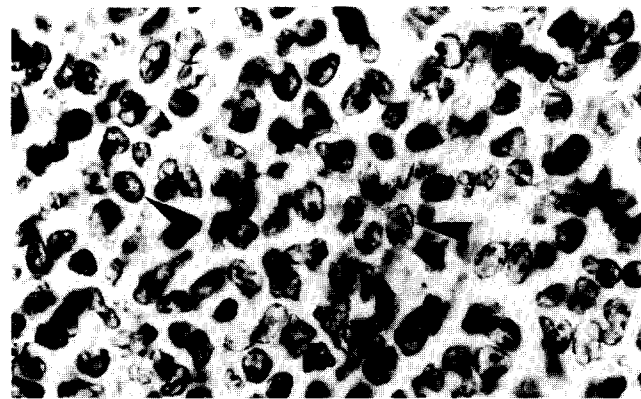


Fig. 3. Higher magnification: it is possible to observe that, in this field, most of the cells present cleaved nuclei (arrows). In addition, cells with a regular nucleus are also present. Giemsa stain. $\times 40$.

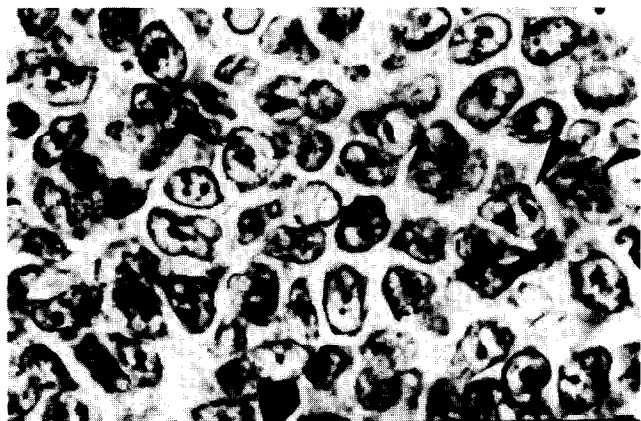


Fig. 4. Cells with cleaved nuclei are present. On the left it is possible to observe a centrocyte (arrow), while on the right a centroblast is present (arrow). Giemsa stain. $\times 100$.

the tongue was rendered. The patient was started on chemotherapy, but after 4 months of treatment the patient was lost to follow-up.

DISCUSSION

Lymphomas represent the third most common group of

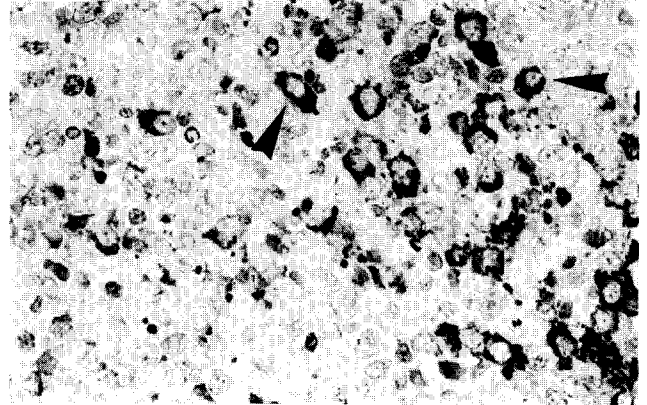


Fig. 5. A number of CD-20 positive cells are shown to be present (arrows). Immunoperoxidase stain. $\times 25$.

malignant lesions of the oral region, following squamous cell carcinoma and salivary gland neoplasms [6]. However, extranodal NHL in the oral cavity is less common [6].

Malignant lymphomas account for approximately 5% of all malignancies in the United States and are the seventh most common cause of death from cancer [7]. NHL are about three times more common than Hodgkin's disease (HD) and the incidence of NHL is roughly equal to that of oral carcinoma [7].

NHL have a great tendency to affect organs and tissues that do not ordinarily contain lymphoid cells [7].

The oral cavity contains only small amounts of lymphoid tissue and thus is much more commonly involved in NHL than in HD [7].

NHL commonly involves the oropharyngeal lymphoid tissue comprising Waldeyer's ring, but only occasionally involves other oral tissues [7, 8]. The favoured intraoral sites are palatal mucosa and bone [7]; in Howell *et al.*'s [9] series the most common locations were, respectively, the vestibule and gingiva, mandible, palatal soft tissue and maxilla. Of the NHL that occur in the oral cavity, 15–45% have occurred in the maxilla and mandible, with the mandible the less frequent site [8].

Touboul *et al.* [10] reported just 1 case of NHL of the tongue in 35 cases of head and neck non-Hodgkin's lymphomas, while Haidar [11] found 7 cases located on the tongue out of 94 patients with extranodal NHL of the head and neck, and Shima *et al.* [12] found 3 cases located in the tongue out of 114 patients with extranodal NHL of the head and neck. Wolvius *et al.* [5] found 1 case of tongue involvement in 34 cases of oral primary extranodal NHL. Slootweg *et al.* [3], Fukuda *et al.* [13], Soderholm *et al.* [1], Howell *et al.* [9] and Economopoulos *et al.* [14], on the other hand, found no tongue involvement, respectively, in 20, 15, 17, 34 and 52 patients with extranodal NHL of the head and neck.

The most common symptoms are local swelling, pain and discomfort in the throat or ulcer [12]. The clinical features of primary extranodal oral NHL are not characteristic and therefore these NHL can easily be misdiagnosed [5]; the most frequent presenting symptoms in the oral cavity are related to the local tumour mass [5].

The diagnosis of NHL can be made only by biopsy [6].

Consistent survival data have not been obtained for oral lymphomas, probably owing to the different classifications of the histologic subtypes, a small number of patients, the

duration of the follow-up and the different treatment modalities [2].

The overall survival for NHL is lower than that for HD [15]. The prognosis of NHL is related to the stage of the tumour, the aggressiveness of the malignant cell type and the response to treatment [6]. Oral lesions seem to be quite sensitive to irradiation [6].

The mean survival was 19 months [1]; Wolvius *et al.* [5] reported a mean survival of 34 months, with no difference in prognosis between patients with bone and soft tissue lymphomas.

The tongue carried the worst prognosis, while the best prognosis was in the parotid and tonsillar lesions [9].

1. Soderholm AL, Lindqvist C, Heikinheimo K, Forssell K, Happonen RP. Non-Hodgkin's lymphomas presenting through oral symptoms. *Int J Oral Maxillofac Surg* 1990, **19**, 131–134.
2. Zanakos SN, Kambas I, Gourlas PG. A non-Hodgkin's lymphoma in the buccal mucosa. A case report. *Oral Surg Oral Med Oral Pathol* 1992, **74**, 340–342.
3. Slootweg P, Wittkamp ARM, Kluin PM, Wilde PCM de, Unnik JAM van. Extranodal non-Hodgkin's lymphoma of the oral tissues. *J Maxillofac Surg* 1985, **13**, 85–92.
4. Gusenbauer A, Katsikeris NF, Brown A. Primary lymphoma of the mandible: report of a case. *J Oral Maxillofac Surg* 1990, **43**, 409–415.
5. Wolvius EB, Van der Valk P, Wal JE van der, *et al.* Primary extranodal non-Hodgkin's lymphoma of the oral cavity. An analysis of 34 cases. *Oral Oncol, Eur J Cancer* 1994, **30B**, 121–125.
6. Griffin TJ, Hurst PS, Swanson J. Non-Hodgkin's lymphoma: a case involving four third molar extraction sites. *Oral Surg Oral Med Oral Pathol* 1988, **65**, 671–674.
7. Wilson TG, Wright JM. Non-Hodgkin's lymphoma of the gingiva: review of the literature. Report of a case. *J Periodontol* 1986, **57**, 155–158.
8. Barber HD, Stewart JCB, Baxter WD. Non-Hodgkin's lymphoma involving the inferior alveolar canal and mental foramen: report of a case. *J Oral Maxillofac Surg* 1992, **50**, 1334–1336.
9. Howell RE, Handlers JP, Abrams AM, Melrose RJ. Extranodal oral lymphoma. Part II. Relationship between clinical features and the Lukes–Collins classification of 34 cases. *Oral Surg Oral Med Oral Pathol* 1987, **64**, 597–602.
10. Touboul E, Ghenim C, Chantelar JV, *et al.* Lymphomes non Hodgkiniens de la tete et du cou, stades I et II. A propos de 35 cas. *Rev Stomatol Chir Maxillofac* 1985, **86**, 300–309.
11. Haidar Z. A review of non-Hodgkin's lymphoma of the oral cavity. 1950–1980. *J Oral Med* 1986, **41**, 197–200.
12. Shima N, Kobashi Y, Tsutsui K, *et al.* Extranodal non-Hodgkin's lymphoma of the head and neck. *Cancer* 1990, **15**, 1190–1197.
13. Fukuda Y, Ishida T, Fujimoto M, Ueda T, Aozasa K. Malignant lymphoma of the oral cavity: clinicopathologic analysis of 20 cases. *J Oral Pathol* 1987, **16**, 8–12.
14. Economopoulos T, Asprou N, Stathakis N, *et al.* Primary extranodal non-Hodgkin's lymphoma of the head and neck. *Oncology* 1992, **49**, 484–488.
15. Miller RI. Non-Hodgkin's lymphoma of the lip: a case report. *J Oral Maxillofac Surg* 1993, **51**, 420–422.