

# Oral Pseudolymphoma: A Report of 2 Cases

## SUMMARY

**Objectives:** The aim of this study was to present 2 infrequent cases pseudolymphoma in the oral cavity, to discuss their locations and to emphasize the importance of differential diagnosis for the prognosis.

**Methods:** Excisional biopsies were performed in a 34 year-old women complaining for erythematous lesion in the oral floor and in a 44 year-old man who had a bluish lesion and erythema in the oral floor. Both specimens were investigated routinely and CD3, CD20, CD45, CD23, CD5 and FVIII markers. Immunohistochemical staining methods was applied and investigation was performed under light microscope. After the investigation, the cases were diagnosed as pseudolymphomas.

**Results:** Pseudolymphoma may show clinical and histologic resemblance to lymphoma, so that differantiation with lymphoma can be very difficult.

**Conclusion:** Pseudolymphomas have a tendency to malign differantiation; these differences must be evaluated clinically.

**Keywords:** Pseudolymphoma; Eritematous Lesion

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## CASE REPORT (CR)

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## Introduction

Pseudolymphoma is not a specific disease but rather an inflammatory response to known or unknown stimuli that results in a lymphatous-appearing, but benign accumulation of inflammatory cells<sup>1,4,5</sup>. A variety of specific diseases are sometimes referred as pseudolymphomas simply because they mimic lymphomas<sup>2,6</sup>. Lymphomas are solid tumors and they are all malignant. In cases of pseudolymphoma, resemblance to lymphoma is usually most apparent histologically<sup>3,6,9-11</sup>. No frequency data is available; but the condition is rare.

Pseudolymphoma is not associated with mortality. Localized variants rarely result in morbidity. Although 90% of reported patients with pseudolymphoma are white, racial predilection has not been established. Individuals of any age may be affected, but localized, nodular pseudolymphoma is most common in early life<sup>6,7,11</sup>. Aetiology is not clear. Inciting agents include tattoo dyes, jewelry, insect bites, medications, folliculitis, trauma,

vaccinations and infections, which may play a role in the development of the lesions<sup>8</sup>.

The aim of this paper was to present 2 pseudolymphoma cases of the oral cavity, which is very infrequent, to discuss their locations and to emphasize the importance of differential diagnosis for the prognosis.

## Case Reports

A 34-year-old female was referred to our clinic with erythematous lesion on the oral floor that had been present for a month (Fig. 1). The lesion was persistent despite application of topical corticosteroids by her dental practitioner. In the anamnesis, the patient reported no other mucous membrane lesions or cutaneous manifestations. Physical examination revealed no cervical or submandibular lymphadenopathy or facial asymmetry. The patient was in good health with no significant medical history. She was smoking 10 cigarettes per day for 15 years.



Figure 1. Erythematous lesion in the oral floor

During intraoral examination, a flat papule 8x12 mm in diameter was observed on the floor of the mouth. The lesion was well demarcated, reddish, rough in surface, and apparently not ulcerated. Other sites of the oral mucosa were normal. Teeth were healthy and no pathology was detected associated with bony structures.

A 44-year-old man referred with bluish and erythematous lesion on the oral floor. His dentist noticed the erythematous lesion and the patient had no complaint about the lesion. His systemic anamnesis was unremarkable. Physical examination revealed no lymphadenopathy or facial asymmetry.

During his intraoral examination, a bluish and erythematous lesion was present on the oral floor that looked like amalgam tattoo lesion (Fig. 2). The lesion was well demarcated and not ulcerated. Other sites of the oral mucosa were normal. He reported that during the previous dental treatment his dentist had removed the amalgam filling from the adjacent tooth to the lesion.



Figure 2. Bluish lesion and erythema in the oral floor

### Subsequent Course

Excisional biopsies were performed under local anesthesia, and processed for histopathological examination. Both specimens were investigated with H&E staining. Immunohistochemical staining was

done for CD3, CD20, CD45, CD23, CD5 and FVIII markers. Microscopic investigation was done under light microscope.

### Pathological Diagnosis

In the first case histological examination revealed intense lymphocyte and plasma cell infiltration that formed follicles having large germinal centres in the fibrous tissue under the stratified-squamous cell epithelium (Fig. 3). In this infiltration a few number of eosinophilic polymorph leucocytes, salivary ducts and acini were present. (Fig. 4) At the surrounding region many blood vessels full of enlarged erythrocytes were detected. In the immunohistochemical staining methods LCA and T cell were positive, B cell strongly positive, and S-100 slightly positive or negative staining (Figs. 5 and 6).

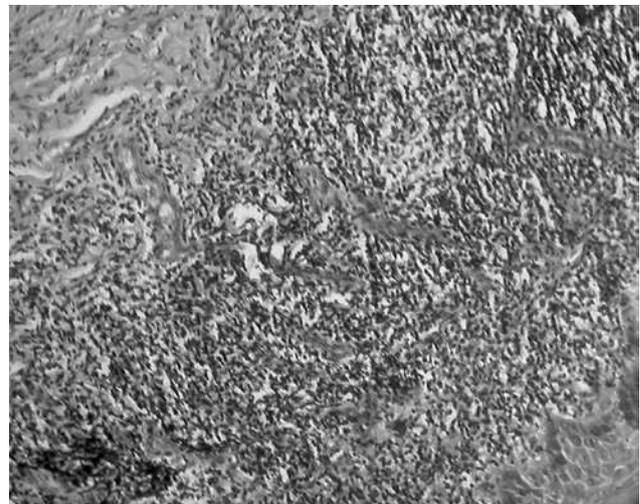


Figure 3. Lymphocyte infiltration that forms follicular and germinal centres under the surface of the epithelium (H&Ex100)

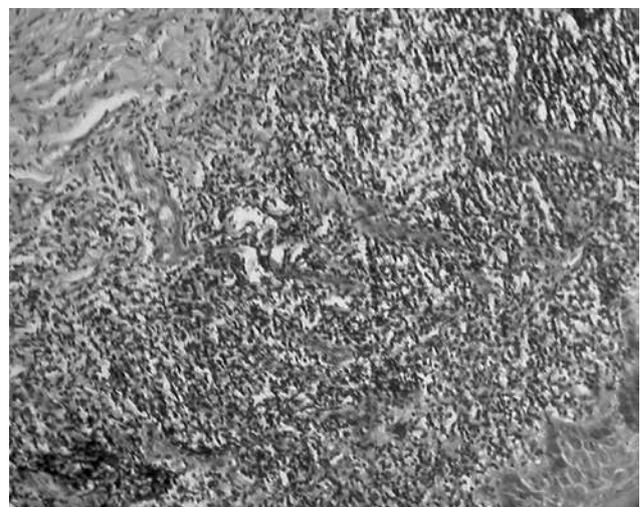


Figure 4. Lymphoid follicles in connective tissue (H&E x250)

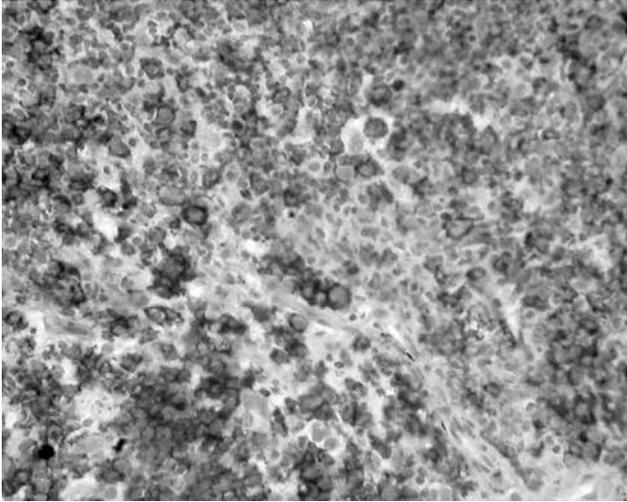


Figure 5. CD 45(+) in lymphocytic infiltration (x400)

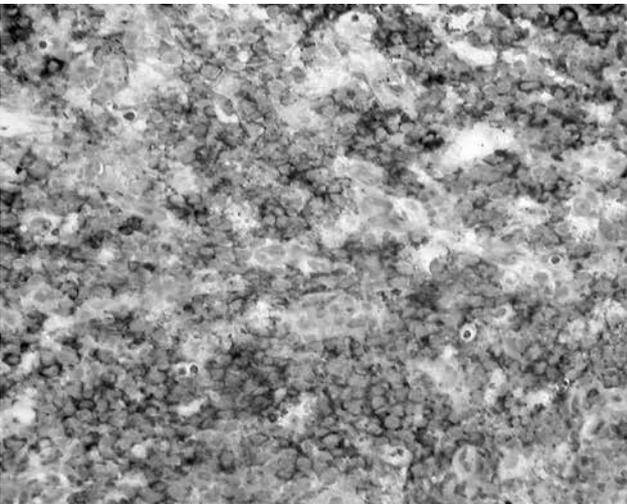


Figure 6. CD3 (+) cells in lymphocytic infiltration(x400)



Figure 7. Lymphocyte infiltration that forms follicles and germinal centres under the surface of the epithelium (H&Ex100)

In the second case, lamellar hyperkeratosis, acanthosis and papillomatosis were present in the stratified squamous cell epithelium (Fig. 7). In the fibrous tissue rich in blood vessels, intense lymphocyte infiltration was present. In the subepithelial tissue and between the layers many histiocytes, which had phagocyte dark coloured pigment, were observed (Fig. 8). In the immunohistochemical staining methods: CD20 and CD3 yielded focal strongly positive, CD23, CD5 negative and for FVIII, blood vessels walls revealed positive staining (Fig. 9). After the investigation, the cases were diagnosed as pseudolymphomas.

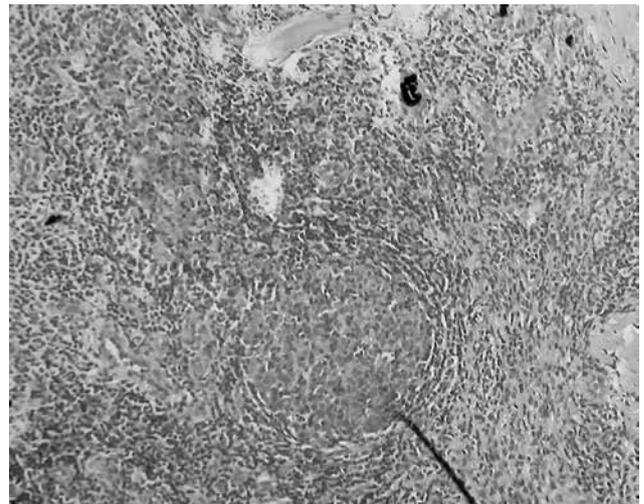


Figure 8. Lymphoid follicles in connective tissue (H&E x250)

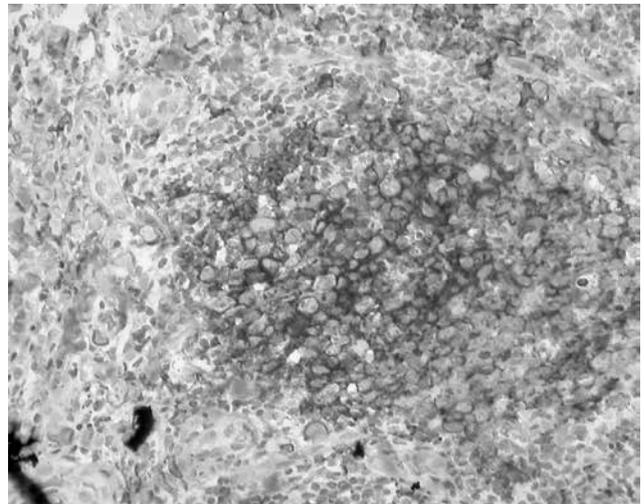


Figure 9. CD3 (+) cells in lymphocytic infiltration (x400)

## Discussion

Pseudolymphoma can be defined as a benign infiltration of lymphoid cells or histiocytes that microscopically resembles a malignant lymphoma.

Pseudolymphomas have a tendency to malign differentiation; these differences must be evaluated clinically. Pseudolymphomas are classified in 2 groups: B-cell and T-cell pattern pseudolymphomas<sup>4</sup>. Examination of patients with B-cell pattern pseudolymphoma usually reveals a single nodule, from 1 to several centimeters in diameter. Although the lesions may be soft, they are more often firm<sup>1,6</sup>. Typically, the lesions are red to purple in colour, but they may show no coloration. Approximately  $\frac{3}{4}$  of the cases are localized. The remaining cases usually show grouped papules in a single defined region. More disseminated cases are rare. The most common site of involvement is the face (70%), followed by the chest and the upper extremities. Lesions are infrequent below the waist<sup>6,8,10</sup>.

Patients with T-cell pattern disease usually present with broad, erythematous patches, which are more often symptomatic<sup>4,6,9,10</sup>. In reported cases of localized B-cell pattern pseudolymphoma, the female-to-male ratio is approximately 2:1. No significant epidemiologic data are available regarding entities in the T-cell pattern in pseudolymphoma spectrum<sup>4,7</sup>.

Histopathologic findings of pseudolymphoma are nodular and/or diffuse infiltrates, made up mostly by small lymphocytes within the connective tissue and sometimes in the upper part of subepithelial region. Epithelial and non-epithelial structures of adnexa tending to be spared. "Tingible bodies" (polychrome bodies, lymphocytic nuclear), especially noticeable in germinal centers but also in the absence<sup>4,7,8-10</sup>.

Such lesions are likely reactive in nature and characterized by heavy infiltrate resembling lymphoma<sup>6,10</sup>. Most authors regard the lesion as a reactive hyperplasia of mature lymphoid reticular cells and not a lymphoma because of its benign, self limited course<sup>1-5,8,9,11</sup>. On the other hand, it has been reported that some lesions diagnosed as pseudolymphomas on the basis of histologic criteria have turned out, over years, to be indubitable malignant lymphomas<sup>6,7,10</sup>. Considering this fact, great care should be taken when evaluating the lesion histologically and clinically. It is known that the aetiology is not clear<sup>10</sup>. In the second case it is assumed that the probable aetiological factor was irritation of the dental bur.

According to clinical features and histopathologic investigation of the presented 2 cases, these pseudolymphomas could probably be of B-cell pattern.

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