Unusual Cause of Gingival Ulcer


Department of maxillofacial surgery, University Hospital Lausanne CHUV, Oral and Maxillofacial Surgery, Rue du Bugnon 46, 1011 Lausanne, Switzerland

Abstract

Background: The early diagnosis of malignant lesions of the oral cavity is one of the primary diagnostic aims of dental practitioners. Ulcerations are common primary lesions. We would like to demonstrate an uncommon differential diagnosis.

Case Description: An almost completely edentulous patient suffered from a growing, indolent gingival ulcer on his lower right mandible. He had avoided any kind of dental recall for many years due to a phobia. After radiological evaluation it was clear that his lower prosthesis had caused the frictional ulcer, ground through the bone to a completely retained horizontal second premolar and finally reached the pulp of the tooth itself.

Clinical Implications: This report underscores the importance of performing at least one complete radiological evaluation prior to patients receiving partial or complete dentures as well as checkups and oral mucosal examinations after adaptation of the prostheses.

Keywords: Oral ulcer; Malignancy; Dental prosthesis; Radiology; X-ray; Recall

Case Report

Oral ulcers have common occurrence, a multitude of causes and are prominent features in the practice of oral medicine [1]. On first presentation our 52 year old patient suffered a small, painless ulcer on the alveolar crest of the lower jaw which he had first noted 2 years ago. He had sought no treatment and the ulcer slowly increased in size. His personal history was uneventful, suffering only from hypercholesterinemia treated with statins. There was no further regular medication and he had taken nothing in the days leading up to the consultation. 15 years ago he had received insufficient treatment for a left sided midface fracture in his home country. A revision osteotomy was performed a couple of years later and it was reported that the majority of his teeth were lost for reasons unrelated to the accident. He was able to retain the two lower canines, which were used as anchors for a lower dental prosthesis. During the interim period the patient had had various adaptations of the base of his prostheses which he rarely removed since he was embarrassed about being edentulous at such a young age. The lesion was situated on the alveolar crest in the region 45/46 and was 1.5x1cm in diameter; it did not show vascular injection but was slightly elevated at the border. On palpation the center was hard and completely indolent (Figure 1) and was considered to be denuded and discolored bone. It corresponded perfectly to the most convex part of his right lower dentures (Figure 2). There were no palpable lymph nodes in the neck and no other mucosal lesions. The OPG showed a distally inclined horizontal premolar with an indented crestal root surface (Figure 3). Perilesional biopsy demonstrated no malignancy. After removal of the tooth (Figure 4 A/B/C/D) and adaptation of the prostheses the patient had no further issues and the ulcer did not recur.

Discussion

The term ulcer is commonly used for any lesion with central erosion of the skin or mucosal surface, usually accompanied by an inflammation and sloughing of the central/marginal areas [2]. Ulcers can be separated into the two large groups acute and chronic; the differentiation commonly accepted being that a chronic ulcer has been present for more than 2 weeks [3]. Acute ulcers are commonly of traumatic, allergic or infectious nature, while chronic ulcers can develop in cases of Lupus, pemphigoid, Lichen or oral squamous cell carcinoma (OSCC) to name but a few [1]. Mucosal lesions in denture wearers are sadly a frequent occurrence and pressure ulcers are one of the more common problems [4]. Since most ulcers are painful the fact that our patients was not had to raise concerns as to possible malignancy [5]. That the ulcer had been present for 2 whole years and grown only marginally during that time would however make the diagnosis less likely. The mobility the worn anchorage devices on the canines allowed was such that the round surface of the right lower prosthesis rubbed against the mucosa continually, and after wearing...
through that it ground through the overlying bone and one entire side of the root down to the pulp (Figures 2 and 4). Impacted teeth in edentulous patients are less rare than one might think. While retained root fragments have been described between 15.3% and 9% completely retained and impacted teeth can be present in 4% to 6.2% [6,7]. Since the patient had had multiple occasions for radiographic evaluation the fact that the tooth had never been spotted or flagged up as a possible problem is astonishing. It has to be at least partially attributed to the fact that he was not amenable to regular recall. Problems with these retained teeth are however rarer and we were only able to find one publication describing paradental infection due to denture compression in the English speaking literature [8] and none illustrating actual dental abrasion. We would therefore like to emphasize the importance of performing at least one radiological evaluation of a patient receiving partial or complete dentures before beginning any kind of treatment [9] and the equal importance of checkups and oral mucosal exams after adaptation [10].

The patient gave written informed consent both for the removal of the tooth and for publication of anonymised data.

References