



Pain and Erythema Originated from an Unknown Impacted Third Molar in an Elderly Person: A Case Report

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Abstract

A tooth that fails to erupt as expected is “impacted” and can produce mild-to-severe symptoms. Here we report a case of an 81-year-old man who presented to our clinic with a 2-week history of pain without swelling, under his removable total denture, in the right posterior molar region of the mandible. He reported difficulty during eating and pain during mastication. On intraoral examination, we noted part of wisdom tooth in the right posterior region. The tissue surrounding the tooth was erythematic and the patient reporting pain on its palpation. We extracted the tooth under local anesthesia, with minimal mucosal incision. After extraction, we curetted and irrigated the socket and sutured the mucosa. Edentulous geriatric patients who use removable total or partial dentures can experience problems from impacted teeth. If overlooked, these patients may experience unnecessary pain and odontogenic infection. Consequently, tooth impaction should be considered by dentists and physicians who treat elderly or edentulous patients.

Keywords: Geriatric; Elderly; Impacted tooth; Wisdom tooth; Denture

Introduction

Oral and maxillofacial surgeons evaluate and manage impacted teeth. When a tooth fails to erupt as expected, it is considered “impacted.” An impacted tooth can produce mild-to-severe symptoms. Mandibular third molars frequently become impacted and can be removed in patients with one or more pathological symptoms or for prophylactic reasons [1]. Third molars should be removed when they are associated with pericoronitis, odontogenic cysts, tumors, or root resorption of adjacent teeth. Orthodontic concerns can also warrant removal [1,2]. After removal and before restoring the edentulous area with removable or fixed prostheses, dentists should confirm that no impacted teeth have remained in the region. Fully impacted teeth that are completely covered with bone generally show no pathological changes, particularly in patients aged over 40 years. However, if we rehabilitate an edentulous jaw with a total or partial removable tissue-borne prosthesis, it is possible that the bone will be resorbed, perforating the overlying mucosa and causing pain and inflammation in the area. When this happens, the impacted tooth requires removal and the dental prosthesis will likely require reconstruction [1]. This article reports a case of an elderly man who wore a removable total denture without any symptom for 12 years and presented with pain under his prosthesis caused by an unknown, impacted third mandibular molar.

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Case Presentation

Here we report a case of an 81-year-old man who presented to our clinic with a 2-week history of pain without swelling, under his removable total denture, in the right posterior molar region of his mandible. He reported difficulty during eating and pain during mastication. His wife felt that he might have aphtha, and he was referred to us for examination of suspected aphtha under his total denture. He had undergone angiography 4 and 8 years prior to presentation. He had been using 100-mg acetylsalicylic acid (Coraspin, Bayer Pharma AG, Berlin, Germany) and 75-mg clopidogrel sulfate (Plavix, Sanofi, Paris, France) daily since the first angiography. On intraoral examination, we observed part of wisdom tooth in the right posterior mandibular region. The tissues around the tooth were erythematic and painful on palpation. The patient reported that all of his teeth were extracted and that he started using total dentures for both the maxilla and mandibula 12 years ago. He reported that until 2 weeks ago, he never experienced denture-related pain or discomfort. On radiographic evaluation, a panoramic film revealed a horizontally retained wisdom tooth, located in the right posterior mandible, surrounded by radiolucency. We prescribed 1000-mg amoxicillin plus clavulanic acid (Augmentin, GlaxoSmithKlein, Brentford, United Kingdom), and benzoylamine HCl plus chlorhexidine gluconate (Kloroben, Drogasan, Ankara, Turkey). Five days later, he reported



Figure 1: Impacted third molar after patient used antibiotic and antibacterial mouthwash.



Figure 2: Extracted wisdom tooth.

decreased pain and complete resolution of soft tissue erythema surrounding the tooth (Figure 1). We extracted the tooth under local anesthesia with a minimal mucosal incision (Figure 2). We then curetted and irrigated the socket prior to mucosal suturing. The patient received standard postoperative instructions and was referred to the prosthodontics department for construction of new dentures.

Discussion

Impacted third molars can cause pericoronitis, periodontitis, dental caries, odontogenic cysts, tumors, root resorption of adjacent teeth, jaw fractures, etc. These conditions usually produce symptoms and are diagnosed during routine dental examinations. Surgical removal of impacted wisdom teeth is common. However, it is less clear if asymptomatic, disease-free, and impacted third molars should also be removed [1-3]. In young patients, prophylactic removal of asymptomatic, disease-free third molars is common. As age increases, healing response decreases and the risks of surgery-related

complications increase. Most symptoms are associated with partially erupted teeth, and completely impacted teeth are less likely to cause problems [2,4]. In patients aged over 40 years, fully impacted third molars that are completely covered with bone and have no signs of pathology should not be removed. However, age-related alveolar bone resorption can cause a fully impacted wisdom tooth to erupt through overlying bone and mucosa, potentially causing pathological problems [1,4]. Osaki et al. [3] investigated impacted third molars in 41 patients aged over 60 years and documented several cases of pericoronitis, infected dentigerous cysts, perimandibular abscesses, and chronic mandibular osteomyelitis associated with impacted third molars. Kojima et al. [5] reported a case of a buccal abscess from an impacted wisdom tooth in a 94-year-old patient. Ghaeminia conducted a systematic review in 2005 (updated in 2012 and 2016) to evaluate the effects of removal, compared with those of retention, of asymptomatic, disease-free impacted wisdom teeth. They concluded that there was insufficient evidence to determine whether asymptomatic, disease-free impacted wisdom teeth should be removed or not. The authors concluded that “patient values should be considered and clinical expertise should be used to guide shared decision-making with patients who have asymptomatic, disease-free impacted wisdom teeth” [2]. Edentulous geriatric patients may present to neurology or otorhinolaryngology departments when they experience jaw-borne pain. Especially in patients who use total prosthesis, we risk delaying diagnosis and treatment because an impacted tooth may be an unexpected source of pain. We were unable to find a published case report on an impacted third molar tooth, under a total removable denture, causing pathological symptoms. We believe that our case is a noteworthy addition to the clinical and research literature.

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