Non-Surgical Endodontic Treatment of an Extraoral Sinus Tract
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Introduction
This case is representative of what would be traditionally known as a cutaneous, or extraoral, sinus tract. By definition a sinus tract is a communication between an anatomic region and an anatomic space, or an external environment. There have been cases reported in the literature of extraoral fistulas but these typically involve the nasal mucosa, which would satisfy the criteria for a fistula. Fistulas are defined as a communication between two anatomic cavities. Often when these patients present to the dentist they have already been to a dermatologist for treatment of the skin abscess with no success. Some patients are even subjected to multiple surgical excisions, radiotherapy, multiple biopsies, and multiple antibiotic regimens with eventual recurrence. If the patient undergoes destructive treatment such as this the result is often a very unattractive scar. However, if the diagnosis of dental etiology is made early the patient undergoes simple endodontic treatment and removal of the infected tissue within the tooth with minimal cutaneous scarring.

Clinical Presentation
The sinus tracts typically present as erythematous, symmetrical, smooth, non-tender nodules 1 to 20mm in diameter, with crusty and periodic drainage in some cases. Palpation of the area often reveals a cordlike tract attached to the underlying alveolar bone in the area of the suspected tooth. If the clinician is unsure as to which tooth is involved they may place a gutta percha cone into the sinus opening and expose a radiograph. Pulp tests should be performed on the suspected tooth as well as adjacent teeth. Cutaneous lesions are likely to occur if the apices of teeth are superior to maxillary muscle attachments or inferior to mandibular muscle attachments. Approximately 80% of reported cases are associated with mandibular teeth and 20% with maxillary teeth. The most common areas of involvement are the chin and submental regions. Other sites include the cheek, canine space, nasolabial fold, upper lip, and inner canthus of the eye.

Differential Diagnosis
The clinical differential diagnosis includes pustule, actinomycoses, osteomyelitis, orocutaneous fistula, neoplasms, local skin infections, pyogenic granulomas, chronic tuberculoid, and gumma of tertiary syphilis.

Treatment
The treatment of choice involves the removal of the source of the infection. The only treatments that satisfy these criteria are extraction of the offending tooth or root canal therapy. Systemic administration of antibiotics is not indicated. Removal/treatment of the sinus tract itself is not necessary and healing should occur predictably once treatment is completed with a good chance for scar formation.

References