

Chronic apical abscess (CAA) is characterised by the presence of a sinus tract. There is little or no pain and it can often go unnoticed by a patient for extended periods. There is a viable bacteria colony nestled within the tooth and its activity results in an inflammatory reaction. Hence, this periradicular diagnosis is possible only with teeth that either have a necrotic pulp or were previously endodontically treated.

Do not assume a pulp is non-vital if a sinus tract is present as this could lead to a misdiagnosis. Perform vitality tests in the quadrant to confirm the pulp status and always trace the sinus tract. The first radiograph above is of a case I came across a few years ago. Tooth 14 had a sinus tract that would not resolve despite endodontic treatment and a few rounds of antibiotics. The source of the sinus tract was non-odontogenic, acinic cell carcinoma. Unfortunately, the right half the maxilla was resected on this otherwise healthy young man. I suspect this misdiagnosis would have been avoided if pre-operatively pulp vitality tests were done and the sinus tract was traced. A diagnosis relies upon clinical and radiographic evaluation as well as the results of pulp and periradicular tests. Never diagnose based on an assumption.

In the second case above (No.'s 2 & 3) the 25 had a necrotic pulp and the sinus tract traced to its apex. Its treatment was prioritised; the symptoms and sinus tract soon resolved. Due to financial and practical considerations, completion of the endodontic treatment of 26 was delayed until after the cementation of the 25 crown.

When treating a tooth with a chronic abscess I recommend the following:

- Consider medicating the canals with calcium hydroxide (or my favourite, Diapex)
- Incise and drain the sinus tract
- Only obturate if the sinus tract has healed
- Annual clinical exams and periapical radiographs

Further diagnostic evaluation is required if a sinus tract does not heal. Hopefully a lack of healing is not a sign of a vertical root fracture or a non-odontogenic lesion. Despite our best efforts with orthograde treatment sometimes endodontic microsurgery is necessary for full healing to occur. The third case above (No.'s 4 & 5) is of a seemingly well done endodontic treatment that was not successful in eliminating the sinus tract. Thus, endodontic microsurgery was performed. I noticed small microfractures in the apical portion of the root and suspect these were responsible for the lack of healing. In order to eliminate the small fractures more than the typical 3mm of root-end was resected.

Due to a lack of pain or swelling a patient may be reluctant to proceed with treatment of a CAA case. Below is a list of items to review with each patient:

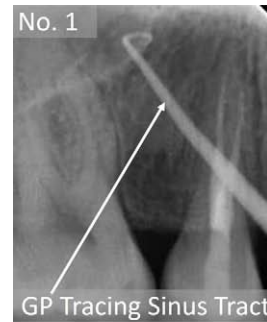
- A lack of pain and obvious swelling are not synonymous with a lack of pathology
- A PA with a GP point tracing a sinus tract is only possible because of an active disease process
- Further delays in treatment allow the bacterial colonies to grow in virulence and number which increases the possibility of complications and lowers the chance of full healing
- Although stable now, pain and significant swelling can develop in the future

It is important for us to have patients make an informed decision to say yah rather than nah to treatment of CAA.

Regards,



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