

“PERIODONTAL INTERVENTION IN ROOT CANAL FAILURE CASES”-A CASE REPORT

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ABSTRACT

Persistent pain after successful root canal therapy becomes a dilemma for a dentist. This case report deals with one such diagnostic problem, where a maxillary anterior tooth was root canal treated and retreated but pain continued with a draining sinus in relation to that tooth. Interpreted in intraoral periapical radiograph, periapical radiolucency was observed. Surgical intervention revealed a larger cystic lesion around the tooth root which was debrided and bone grafting was done and tissue was approximated. Recall visits revealed complete healing of sinus and symptom free condition was attained. Thus a thorough knowledge about the normal anatomy and its variations and proper diagnostic aids are essential in the diagnosis of periapical pathology leading to correct treatment planning and treatment.

Key Words: Root canal therapy, Periapical cyst, Epicoectomy, Lateral and periapical radiolucency, Lamina dura.

INTRODUCTION:

In day to day dental practice it is observed that patient report only in case of pain and generally seen that tooth has already decayed so much that without proper diagnosis [3, 4, 5] a dentist advises root canal treatment and patient in pain has no other option and hence get going. Now what if pain is persisting even after excellent root canal therapy and why is such a question that keeps the dentist in dilemma that why pain. Now importance of correct diagnosis and diagnostic aids come into play. Radiolucency seen at periapical region of the root canal treated teeth is seen.

In some cases infection persists or recurs around the root canal treated teeth. In such cases it becomes necessary to surgically intervene and assess the infection directly clean it around the tooth root hence “A Periodontist” [1, 2].

CASE REPORT

A 30 year female reported in the department of periodontology, with persistent complaint of dull pain and pus discharge i.r.t right maxillary central incisor (**Fig.2**). On clinical and radiographic evaluation after complete history was taken, it was found that she had undergone multiple root canal therapies for the treatment of the same complaint. Last root canal therapy was done 4 weeks ago. Radiographic examination revealed loss of lamina dura, lateral and periapical

radiolucency surrounding the tooth root (**Fig.1**). Clinical examination revealed a probing depth of 7mm distal to right maxillary Central Incisor (C.I) (**Fig.4**), palatal probing depth was around 4mm. It was decided to surgically operate the area. Treatment plan was properly explained to the patient and a written consent of the patient was taken.

Local anesthesia sensitivity test was done (**Fig.3**) and then proper anesthesia was administered to the patient. Crevice and vertical releasing incisions were made and full thickness mucoperiosteal flap was raised (**Fig.5**). After the flap was raised it was visualized there was marked loss of alveolar bone around the root surface. The tooth was not mobile as the mesio and disto palatal bone was still intact (**Fig.6**). The defect was thoroughly debrided and irrigated (**Fig.7**) and was followed by root conditioning and placement of Osseointegrative bone graft (**Fig.8**). Soft tissue was approximated with 3-0 mersilk suture properly (**Fig.9**). Recall of the patient was done after one week for suture removal and then after 2 and 4 weeks respectively clinical and radiographic evaluation was done.

CONCLUSIONS:

Radiolucency was eliminated and trabeculae formation was seen (**Fig 10, 11, 12**). Apical periodontitis, which may be radiographically [7]



Fig. 1. Pre-OP Radiograph

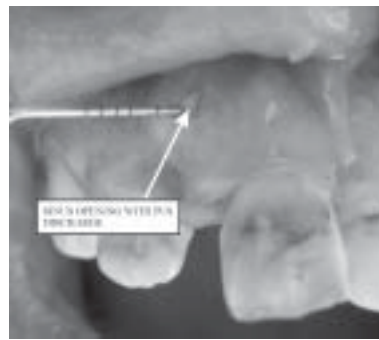


Fig. 2 Pre-OP (Sinus Opening with Pus Discharge)



Fig. 3 Sensitivity Test (Local Anesthesia)



Fig. 4 Probing Depth

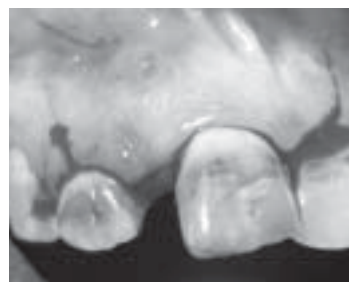


Fig. 5 Incisions.

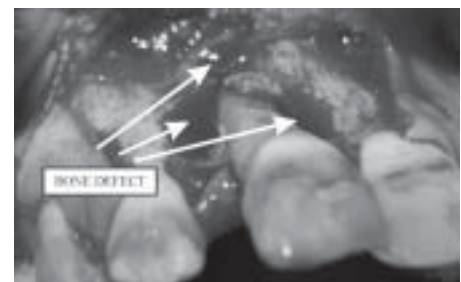


Fig. 6 Lesion Visible Clinically



Fig. 7 Debridement of the Lesion



Fig. 8 Bone Graft Placement



Fig. 9 Suturing after Bone Grafting



Fig. 10 Post Suture Removal (After One Week).

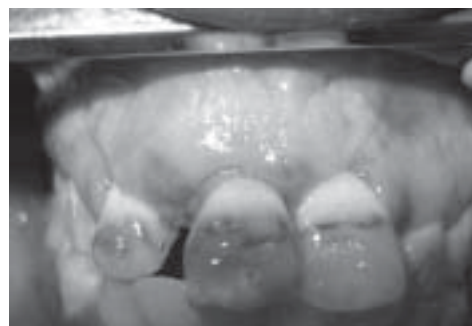


Fig. 11 Lesion Asymptomatic After 15 Days of Suture Removal.

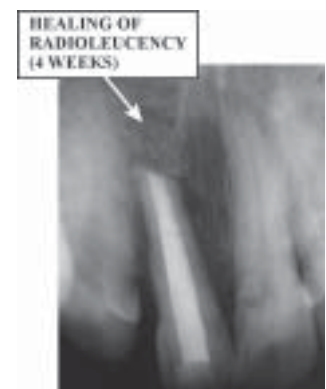


Fig. 12 Post OP Radiograph (Post Suture Removal 4 Weeks)

undetectable or may be larger causing destruction to bone, is likely to persist or emerge in most root filled teeth as a consequence of residual endodontic post-treatment root infection. If the objective of root canal treatment is defined as elimination of apical periodontitis at a histological level, current treatment procedures must be improved. At the same time, it is essential that further knowledge is acquired of the local and systemic biological consequences of residual post treatment root infection and post-treatment apical periodontitis.

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