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ROOT RADISECTION OF MAXILLARY FIRST MOLAR: A CASE REPORT

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▪ **AGE** : 32 Years

▪ **GENDER** : Male

▪ **CHIEF COMPLAINT** : Pain and spontaneous bleeding in the upper left back tooth since 1 week .

Patient was relatively asymptomatic before

▪ **HISTORY OF PRESENTING ILLNESS** : He developed continuous and mild pain in this region which aggravated during mastication.

▪ **PAST DENTAL HISTORY** : Extraction of 15 and 36 , approximately 4 years back.

▪ **MEDICAL HISTORY** : Not contributory

INTRA-ORAL EXAMINATION:

- 26 was found to be heavily restored on the distal aspect.
- The tooth showed class III recession and grade III Furcation involvement.
- The distobuccal root was completely exposed.
- Probing around the tooth revealed absence of periodontal pockets .
- The tooth showed no mobility.
- The tooth was not tender on percussion
- Vitality testing yielded no response.



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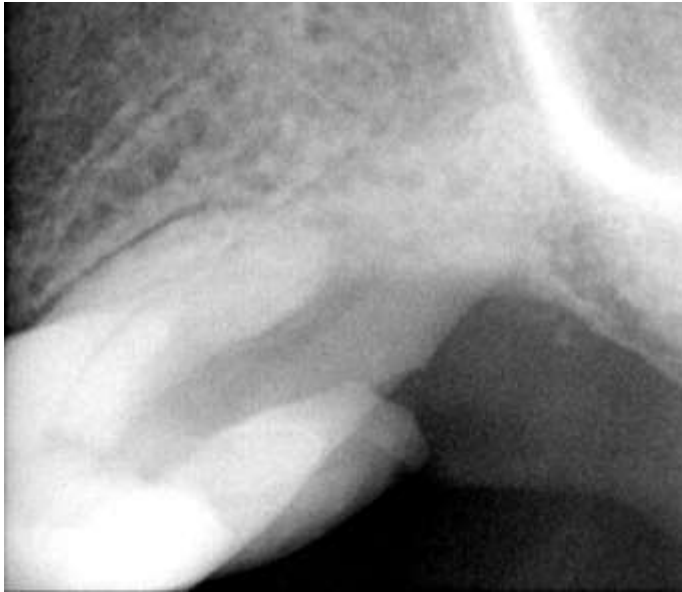


RADIOGRAPHIC EXAMINATION:

- severe vertical bone loss was evident at the furcation area.
- The bony support of the mesio-buccal and palatal roots was intact.



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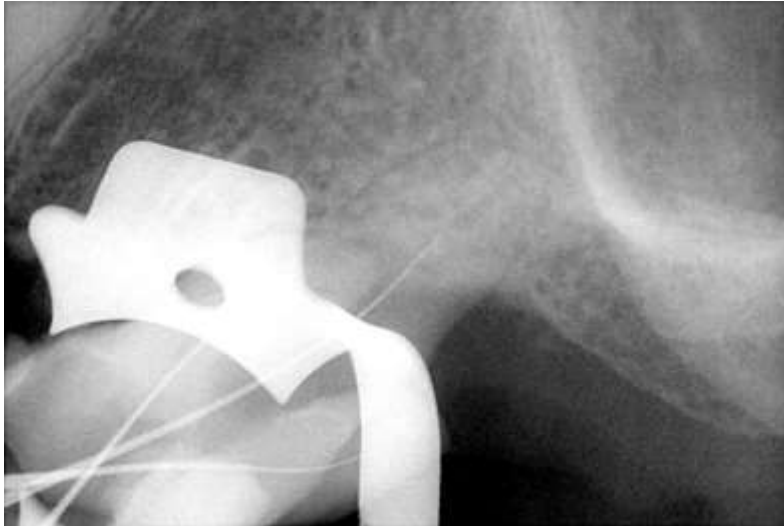
TREATMENT PLAN:

- It was decided to first carry out supragingival scaling wrt 26
- Endodontic treatment of 26 followed by the radisection of the disto-buccal root while retaining the mesio-buccal and palatal root.



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ENDODONTIC THERAPY:





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ROOT RADISECTION:

- A tapered diamond bur in a high speed handpiece was placed around 2mm apical to the CEJ and a cut was made. The cut was channeled towards the center of the tooth
- The bur was moved in the distal to mesial direction
- Once the bur had severed the root, the root was separated from the remaining portion of the tooth.
- The remaining portion of the distal tooth was trimmed using a medium grit diamond bur to remove any ledges or sharp spicules.
- At the point of radisection an apical cavity was prepared with a small round bur .
- The cavity was then restored using Mineral trioxide aggregate
(MTA Angelus)





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RADIOGRAPH AFTER ROOT RADISECTION



CONCLUSION:

- The prognosis for resection procedures is the same as for routine endodontic procedures provided that case selection has been correct, the endodontics has been performed adequately and the restoration is of an acceptable design relative to the occlusal and periodontal needs of the patient.
- Root amputation should be considered as another weapon in the arsenal of the dental surgeon, determined to retain and not remove the natural teeth.
- With recent refinements in endodontics, periodontics and restorative dentistry, resective procedures have received acceptance as a conservative and dependable dental treatment and teeth so treated have endured the demands of function.



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I/ We certify that I/we have participated sufficiently in the intellectual content, conception and design of this work or the analysis and interpretation of the writing of the manuscript, to take public responsibility for it and have agreed to have my/our name listed as a contributor . I/we certify that all the data collected during the study is presented in this manuscript and no data from the case report has been or will be published by the editors, I/we will provide the data/information or will cooperate fully in obtaining and providing the data/information on which the manuscript is based, their assignees.

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