CASE REPORT:

Radisection of multiplperforated mesiobuccal root of maxillary first molar

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ABSTRACT:
It was common saying that "treatment of a diseased tooth is extraction of the tooth." Advancement in dental sciences, production of newer materials and use of modern technology by dental professionals has proved this saying wrong today, dentist around the world perform treatment of teeth that once would have been removed.

Root resections, hemisection, root amputation and bicuspization are all established dental procedure mentioned in the books of endodontics¹.

Radisection is a newer terminology of removal of roots of maxillary molars².

The root resection procedures are used to preserve as much tooth structure as possible rather than sacrificing the whole tooth³.

KEYWORDS: Radisection

PRESENTING COMPLAINT
The patient was referred to us with the complaint of mild pain on right side of upper jaw when he pressed the area.

HISTORY
A young boy of good physique and sound mental health attended the operative dentistry clinic at Baqai Dental College Hospital with mild pain on the buccal aspect of upper first molar on the right side of the patient. Past dental history reveals that he had a big cavity in tooth number 16, which initially was simply restored with amalgam. The restoration did not work and patient had to undergo root canal treatment. The treatment remained incomplete. According to the patient, previous dentist told him that he had failed to control bleeding from one of the roots.

CLINICAL EXAMINATION
The tooth 16 was tender to percussion and was packed with temporary filling materials (cavit) Fig.1. The cavit was removed and canals were irrigated with Sodium hypochloride. Palatal canal and distobuccal canals were dried easily. The mesiobuccal canal showed bleeding on the paper points.

RADIOGRAPHIC EXAMINATION
Distobuccal and palatal canals were prepared by the previous dentist. Mesiobuccal canal could not be negotiated as a diagnostic files passed through the perforation in the floor (Fig.2). A small radiolucency was present around the mesiobuccal root.

TREATMENT
The perforation in the floor was prepared with GIC and the working length as DB and palatal roots was determined and the canals were biomechanical prepared using stepback technique. The canals were obturated with lateral condensation method.

The mesiobuccal canal was negotiated up to the full length. But the bleeding in the canal did not stop. To explore the cause of the bleeding, it was decided to surgically expose the root.

Flap was raised and an MB root was irrigated with normal saline. The root was found leaking at three sides through perforation. It was therefore, decided to amputate the root rather than repaiming it (Fig. 3). The flap was sutured back.

PROGNOSIS
Two weeks later, when the post-surgical pain and discomfort were off, composite buildup of the tooth was performed followed by metal crown (Fig. 4, 5). On a recall visit after six weeks, the patient was clinically symptomless.

Radiograph showed perfect heeling and no sign of radiolucency around the mesiobuccal root (Fig. 6).

CONCLUSION
Hemisection is useful in cases in which there is perforation through the floor of the pulp chamber, or pulp canal of one of the roots of an endodontically involved tooth, which cannot be instrumented [4]. The prognosis for radisection 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 patients [5, 6].

REFERENCES


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