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Q No. 1.

A =

Ans: untreated or missed root canal
this is one of the most common
reason for a failed root canal
procedure in molars as there are
multiple root and pulp chambers
and these are the teeth which are
most common to have an extra canal
or additional canal. According to a study
the presence of an additional canal
is reported close to 75% of the time
in the upper first molar.

2) Left over pulp tissue.

this is another major reason for
failure of root canal treatment
in some instances the root canal
is curved or bent at angles which
make it difficult to reach some
canals are extra long normal root
canal range from 15mm to 25mm
in length but some canals can reach
up to 30mm which make it quite
difficult to reach as these lengths
there will be left to infected tissue
in the canal which can lead to
failure in the root canal in future.

3) Coronal leakage;

This result from leaking crown or restoration when the crown or the post RCT restoration is not properly done because re-infecting the root canal system. this leads to failure of the root canal treatment done thus requiring a re-RCT along with a new restoration or crown as well.

4) over extension of GP Point into Periapical region.

This can be termed as an iatrogenic cause for failure of RCT where the dentist is question is at fault this happen when the GP Point is over extended or crosses the point tooth apex and enters the Periapical region thus inflaming the surrounding tissue.

5) Breakage of file in the root canal

this is an unfortunate but a known cause of failure of RCT is broken file used to Permannent ~~filling~~ in the canal which lead to breakage of instrument due to excessive torsion force being applied. in most cases if the instrument is removed and re RCT performed.

6) Periodontal or gum infection in some rare case it is seen that a Periodontal or gingival infection like Periodontal or Gingivitis can lead to infection of the root canal which is termed as Perio-endo lesion.

Part (B)

Cause of breakage

- ① Torsional Fatigue
- ② Flexural Fatigue

management

- ① By Pass
- ② Retrieval

Prevention

Knowledge of the Physical characteristics of the instrument

- 2) Flaws - Such as shiny areas or unwinding are detected on the

Sluts.

- 3) instrument bending or kinking occurred due to excessive use.

- 4) The file kinks instead of curving
- 5) Corrosions is noted on the instrument.

Q No (2)⁴

Ans: Isolation with Rubber dam ...

- Isolation of the tooth is accomplished with a rubber dam
- keep bacteria in the saliva from entering in to the tooth.
 - Prevents debris instruments etc from going down the patient's throat

High-tech Instruments:

Rotary nickel-titanium (Ni-Ti) Files.

Efficient way to clean the canal system, significantly reducing operating time.

Able to navigate curved canals due to their flexure.

Cleaning the root canal we use many instruments of different size and different shapes to properly clean and shape your specific root canal anatomy.

Disinfection of the root Canal

Sodium hypochlorite is one of the disinfectants used to reduce the bacteria load within the tooth.

Specialized blunt-ended needles are used to deliver these disinfectants to the end of the root in a safe and effective way.

Accessing the Root Canals.

To gain access to the root canals of the tooth, a small opening is made either on the occlusal surface of the tooth for posterior teeth or on the lingual side of.

Final Preparation:

After thoroughly cleaning and shaping the canals, the canals are dried with absorbing paper point.

Obtunding (Filling)

Finally the canals are sealed with two components. Sealer - a cement that sets over time -

1. Gutta Percha - a filler made a natural from of latex.

Upon completion of the root canal treatment,

Cotton Pellet Soaked in an antibacterial solution

A solid temporary filling on top,

This will restore functionality to your tooth and protect it from fracturing.

(7)
Q No. (1), (3)

Ans: Steps of technique:

The canal has been opened rinsed with 5% Sodium hypochlorite dried and Calcium hydroxide was then placed in the canal for 2 weeks.

7 days after initial treatment with Calcium hydroxide the incisor was instrumented to remove Calcium hydroxide and all the remaining tissue before further treatment.

The apical 4 to 5 mm of the incisor root has been filled with mineral trioxide aggregate (MTA). A moist Cotton wool Pledge was then placed in the canal overnight and the system temporarily sealed using thermoplasticized gutta-percha using obturation and a zinc oxide / eugenol dressing. Check radiograph was obtained to evaluate the apical seal.

The gutta-Percha and Cotton wool Pledge was removed the following day and a definitive root-filling placed. Coronal to the MTA using thermoplasticized gutta-Percha.

The incisor has completed initial treatment with MTA. A temporary restoration has been placed to seal the coronal opening.

At the 6-month and 1 year follow-ups, the clinical and radiographic appearance of the teeth showed resolution of the Periapical lesions.

Q No 4)

Ans: ovate Pontic :

The ovate Pontic is the most esthetically appealing Pontic design. Its convex tissue surface resides in a soft tissue depression or hollow in the residual ridge which makes it appear that a tooth is literally emerging from the gingival. Careful treatment planning is necessary for successful results.

Conical Pontic :

often called egg shaped, bullet shaped or heart-shaped. The conical Pontic is easy for the patient to keep clean. It should be made as convex as possible, with only one point of contact at the center of the residual ridge. This design is recommended for the replacement of mandibular posterior teeth where esthetics is a lesser concern.

Sanitary or Hygienic Pontic is

- 2) Zero tissue contact
- 2) Occlusal gingival thickness should be at least 3mm.
- 2) Convex mesiodistally and faciolingually
- 2) Space beneath the Pontic
 - 2mm (Rosenshield)
 - 3mm (Gylden)

Modified ~~Ridge~~ Ridge Lap Pontic

The modified ridge lap Pontic combines the best features of the hygienic and saddle Pontic designs combining esthetics with easy cleaning.

Saddle ^(↓) or Ridge Lap Pontic:

The Saddle Pontic has a concave fitting surface that overlies the residual ridge buccolingually, simulating the contours and emergence profile of the missing tooth on both sides of the residual ridge.

Q No 5,

Ans:

1. Definition of bridge.

Any dental prosthesis that is luted, screwed or mechanically attached to natural teeth, tooth roots and/or implant abutments that furnish primary support for dental prosthesis.

Types of Bridges:

Fixed bridge
Fixed movable
Cantilever
Spring cantilever.

cb Fixed bridge.

Has rigid connectors at both ends of Pontics which form a rigid prosthesis.

Advantage:

Provides cross arch splinting

Ease of handling.

Disadvantage:

Possible bending of bridge.

Fixed Movable Bridge:

It has a rigid connector usually at the distal end of the Pontic a movable connector that allows some vertical movement of the mesial abutment tooth.

Advantages:

Allows flexure of mandible.
Allows units to be cemented as individual sections.

Disadvantages:

more space required
metal may show occlusally
Food impaction.

Cantilever Bridge:

It's a kind of minimal preparation bridge. It provides support for the Pontic at one end only. The Pontic may be attached to a single retainer or two or more retainers splinted together.

e.g. Maryland bridge, ratchet bridge.

(14)
Date: / /
Advantages;

Preserve tooth structure
Minimal pulp trauma.
Rebond possible.

Disadvantages;

Length of span is limited to one pontic only.
Not successful for posterior prosthesis.

Spring Cantilever bridges;

They are restricted to the replacement of upper incisor teeth. only one pontic could be supported by a spring cantilever bridge.

Advantages;
Restoration of spaced dentition

Disadvantages;

Food impaction under metal connector.

Fracture of metal connector.