

Title Page

Name

Fawad Ahmad

ID

13784

Program

BS D.T.

6th semester.

Department

AHS

Subject

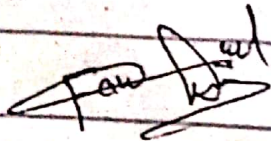
Operative Dentistry

Examination

Final Term

Instructor

Sir Usman Sahib.



Q = (1)

Ans. A Part

(A):

→ This is one of the most common reason for a failed root canal procedure in molar as there are multiple roots 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 maxillary ~~maxillary~~ first molar.

(2)

Q = ①. B Part

(B) → This is an unfortunate but a known cause of failure of "RCT" where the files used to perform RCT is broken in the canal which leads to breakage of the instrument or files due to excessive torsion forces being applied by the dentist.

→ In most cases if the instrument is removed an "Re-RCT" is performed or the files is bypassed which can be done by an Endodontist with a microscope. The tooth can be saved from future infection.

(3)

Q-5

Ans: Definition of Bridge:

→ Any dental Prosthesis that is fixed, screwed or mechanical attached to natural teeth, tooth roots, and or implant Abutment that furnish primary support for dental Prosthesis.

→ A bridge is a fixed dental restoration used to replace one or more missing teeth by joining an artificial tooth definitively to adjacent teeth or dental implants.

(4)

→ Material used For dental Bridge Construction:

→ The Following material are used For dental Bridge:

- Metal
- Metal Ceramic
- Acrylic
- All ceramic

→ Types of Dental Bridge:

- (i) Fixed Bridge.
- (ii) Fixed movable.
- (iii) Cantilever.
- (iv) Spring cantilever.

(1) Fixed Bridge:

→ Has rigid Connectors at both ends of Pontics which form a rigid Prosthesis.

(5)

→ Advantages:

- Provide cross arch splinting.
- Ease of Handling.

→ Disadvantages:

- All Units have to be cemented simultaneously.
- Possible Bending at Bridge.
- Mobility of Abutment, may result in open margin.

(2) Fixed movable Bridge:

→ It has a rigid connector usually at the distal end of the Pontic and a movable connector that allow some vertical movement of the mesial abutment teeth.

(6)

→ Advantages:

- Allow Flexure of mandible.
- Allow Unit to be cemented as individual sections.

→ Disadvantages:

- more space required.
- metal may show Occlusaly.
- Food impaction.

(3) Cantilever Bridge:

→ It's a kind of minimal Preparation bridge. It provide support for the Pontic at one end only.

→ The pontic may be attached to a single retainer or two or more retainers splinted together.

(7)

→ e.g. Maryland bridge,
Sachette bridge.

Advantages:

- Preserve tooth structures.
- Minimal pulp trauma.
- Rebond possible.

Disadvantages:

- Length of span is limited to one pontic only.
- Occlusal Force on The Pontic encourage tilting of Abutment tooth.
- Not successful For Posterior Prosthesis.

(4) Spring Cantilever Bridges

→ They are restricted to the replacement of the upper incisor teeth.

Only one postic could be supported by a spring cantilever bridge.

•• Advantages ••

- Restoration of spaced dentition.

•• Disadvantages ••

- Food impaction under metal connector
- Fracture of metal connector
- Dislodgement of retainer.

(19)

Q-2:

Ans: Accessing The root canal:

→ To gain access of the root canal of the tooth, a small opening is made either on the chewing surface of the maxillary first premolar tooth. (For back teeth.)

•• Rubber dam Isolation:

→ The Isolation of the tooth is accomplished with a rubber dam.

→ To prevent and keep bacteria in the saliva from entering into the tooth.

→ Prevent debris, Instrument etc. from going down to the patient throat, and an access opening is made into the pulp chamber.

(10)

❖ Cleaning The Root Canal systems.

→ We used many Instrument of different size and shapes to properly clean and shape your specific root canal anatomy.

→ A File is placed into The root canal and a radiograph is made to establish The root length accurately. It is important avoid placing The instrument through The apex.

→ After The remnant of The pulp have been removed Using barbed broaches and files and The canal is Flooded with The Hydrogen peroxide to aid in The removal of debris.

→ The canal is Then irrigated with Sodium Hypochlorite.

(11)

❖ 2nd Visits: ❖

→ The First is canal to open and removed to The Temporary material. such as cotton roll and other material

→ The second is canal is clean to The Files such as H-files and K-files and then irrigated to The Hydrogen peroxide and Normal Saline to The Syringe

→ Disinfected of The Root canal System:

→ Sodium Hypochlorite is one of The most disinfectants used to reduced 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 affective

(12)

Final Preparation:

→ After thoroughly cleaning and shaping the canals. The canals are dried prior to filling the roots.

→ The second one is irrigation of the canal

→ Finally the canals are sealed with two components such as,

→ Sealer → a cement that sets over time.

→ Gutta-percha:

→ a filler made of a natural form of latex.

This serves as the permanent root canal filling.

(13)

Using calcium Hydroxide:

→ A Thick paste of calcium Hydroxide is entered to the canal. and endodontic plugger or Condensor used to push the material to the apical end.

→ because the completion of a root canal treatment, a temporary filling is placed over the sealed canal that has two parts.

(i) Cotton palletes soaked in the antibacterial solution such as calcium Hydroxide

→ and seals is completed with a layer of reinforced Zinc-oxide Eugenol cements. Filling on top

(14)

❖ A Final Restoration as (usually a crown) is placed by your dentist

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

❖ The crown two visits

→ The First ~~visit~~ visit as the teeth cutting and offer the impressions.

→ and the final visit as the crown placement.

(15)

Q-4:

Ans: Pontic Definition:

→ Pontic as defined as the artificial tooth on a fixed dental prosthesis that replaces a missing natural tooth. restore its function and usually fills the space previously occupied by the clinical crown.

→ Pontic is the suspended member of a fixed partial denture. It replace the lost natural tooth, restore function, and occupies the space of the missing tooth.

UG

❖ Ideal Requirement of Pontics:

- Facilitate plaque control
- Emergence profile.
- Strength and longevity.
- Be esthetics.
- Restore Functions.
- No Abutment overloading.
- Color stable
- No irritation to the gingival tissue.
- Easily cleansible.

❖ Functions of Pontics.

Mastication.

Speech

esthetics.

(17)



Types of Pontics.

(i) Modified Ovate Pontics:

→ contact more labially than ovate pontics.

No needs of surgical Augmentation.

→ Push the labial gingival margin away to Floss.

(ii) Modified ridge Lap Pontics:

→ The modified ridge lap Pontics combine the best feature of the Hygien and saddle pontic design combining esthetic with easy cleaning.

→ The modified ridge Lap design overlaps the residual ridge on the Facial, but remains clear of the ridge on the Lingual.

(18) (18) ED

(iii) Ovate Pontics:

→ 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 one appear that a tooth is literally emerging from the gingiva.

→ Careful pre-treatment planning is necessary for successful results.

(iv) Conical Pontics:

→ Often called egg-shaped, heart-shaped, or bullet-shaped.

→ The conical pontic is easy for the patient to keep clean.

(19)

→ It should be made as convex as possible, with only one point of contact at the center of the residual ridge.

→ The design is recommended for the replacement of mandibular posterior teeth where esthetic is a lesser concern.

❖ No Mucosal Contact:

(i) Sanitary (Hygienic)

(ii) Modified Sanitary.

(i) Sanitary Pontics:

→ The original Pontic bearing this name as a round blunt porcelain blanks.

There is a flat surface forward the occlusal with a slot running out to one side forward the lingual during the fabrication of the pontics.

(20)

→ After it is ground to fit
The occlusal space Δ is
reglazed.

∴ The Hygienic pontics is the least
"toothlike" design and is therefore
reserved for teeth seldom
displayed during function
(i.e. The mandibular molar).

∴ Metal Ceramic Pontics.

→ Uniform veneer of porcelain - 1-2 mm.

→ Metal surface - smooth and free
of pits
Round angles.

→ Occlusal contact - 1.5 mm
away from junction.

On Material Used:

(i) All metal - Gold, cobalt, chromium,
Nickel chromium etc,

(ii) Non Metallic - Porcelain.

(iii) Combination: Metal and porcelain, Metal and
Resine.

(29)

Q-3:

Ans: Step of The management Technique.

(1). The affected tooth is carefully isolated with a rubber dam and an access opening is made into the pulp chamber.

(2). A File is placed in the root canal, and a radiograph which is made to establish the root length accurately. It is important ~~avoid~~ avoid placing the instrument through the apex, which might injure the epithelial diaphragm.

(3). After the remnants of the pulp have been removed using barbed broaches and files → the canal is flooded with Hydrogen peroxide to aid in the removal of debris.

→ The canal is then irrigated with Sodium Hypochlorite and Saline.

4) The canal is dried with absorbent paper points and loose cotton.

•• Using MTA (mineral Trioxide aggregate).

1) The canal has been opened, rinsed with 5% Sodium Hypochlorite, dried, and calcium Hydroxide, was then placed in the canal for 7 week.

→ 7 day after Initial treatment with calcium Hydroxide and all the remaining tissue before further treatment.

→ The incisor was instrumented to remove calcium Hydroxide.

(23)

- The apical 4 to 5 mm of the incisor roots has been filled with mineral trioxide aggregate (MTA).
- A moist cotton wool was then placed in the canal overnight and the system temporarily sealed using obturation, and a zinc oxide / eugenol dressing.
- Check Radiograph was obtained to evaluate the apical seal.
- The Gutta percha and cotton wool padlet was removed the following day and a definitive root filling placed coronal to the MTA using thermoplasticized gutta-percha.

(24)

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

At the "6" months and "1" year follow-ups, the clinical and radiographic appearance of the teeth should show resolution of the periapical lesions.

"THE END"

"THANK YOU"