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Materials for Construction of Bridge work :-

The following material used for dental bridge

Q1.-

part (A) Write possible outcome for

missed root canal.

Ans: Possible outcome for a

missed root canal.

* (A) Adverse effect on endodontic outcomes.

(A) Associated with periapical lesion.

(B) There will be severe pain.

(C) Fail R.C.T

(D) Post-operative periapical lesion

This is one of the most common reasons for fail root canal in molars as there are multiple roots & pulp chambers and these are teeth which are most common to have an extra or additional canal

P-T-0

Q1 :

Part B :- A patient came for

root canal treatment of

maxillary 2nd molar during procedure

breakage of file occur in the

canal, Manage the procedure

Ans :- Management of file breakage

in the root canal.

* This is an unfortunate but a

known cause of failure of RCT

where the file used to perform

RCT is broken in the canals

which lead to breakage of the

instrument due to excessive torsion

force applied.

* So management for this condition.

P-T-O

- In most cases if the instrument is removed and re-rot performed or the file is bypassed which can be done by an endodontist with a microscope the tooth can be saved from future infection.

- Allowing the separated instrument to be retained in the canal and treating the ~~the~~ remaining portion of canal.

- Bypassing the separated fragment & treating the canal.

- Retrieving the separated fragment and treating the canal.

- Surgical approach for retrieval of

- separated fragment followed by treatment accordingly.

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Q2. Clinically explain root canal procedure for maxillary 1st premolar.

Ans. Procedure of Root Canal

for Maxillary 1st premolar.

* According to my clinical experience

There are 2 Technique to done root canal

- ① Old Technique.
- ② New Technique.

① Old Technique:

• They are completed in 3 visits.

- ① 1st visit
- ② 2nd visit

③ 3rd visit (permanent Restoration)

P-T-O

⑥

① 1st visit :

• first of all give anesthesia to the tooth (infiltration) b/c

the R.C.T of maxillary 1st

premolar and the maxilla we

give infiltration cannot give the block

• When anesthesia are effective

so start the procedure find

the canals in the tooth

with the help of handpiece

(round bur) normally they have

2 canals one is buccal and

the another one is palatal

Sometime we have one canal

• When the canal are find

so start filling start from No file

P-T-O

⑦

and go forward in serial upto

40, 45 or 50. The filling depends

on the canal width

Filling in the canal and

wash the canal with normal

saline. when you sure that

the pulp is fully remove from

the canal so wash the

canal with normal saline

and dry the canal

and pack the different material in

the canal like; pulpodent, pulpotect

or trezoid etc and apply temporary filling.

Advise the recall after 5 or 6

days

P-T-0

(8)

(2)

2nd visit

- * When the patient come after 5 or 6 days
- * Remove old filling
- * Remove material from the canal with help of file
- * wash canal with normal saline
- * Again file the canal
- * And ~~part~~ pack the Calcium hydroxide in the canal and apply Temporary filling
- * Advise the patient to recall after 1 week

(3)

3rd visit :-

- * Permanent Restoration which is called obturation

P-T-O

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* Take history from patient ask about pain and sensitivity if there no so start the procedure of 3rd visit.

Remove old filling.

Remove calcium hydroxide from the canals.

Dry the canals with paper points.

Oblutating Filling

Finally the canals are sealed with two components

① Sealer: a cement that sets over time.

② Gutta percha: a filler made

of a natural form of latex.

upon completion of the root canal treatment, a temporary filling is placed over the sealed canals.

P-T-O

that has two parts:

- Cotton pellet soaked in an antibacterial solution.
 - A solid Temporary filling on top.
- A final restoration (usually a crown) is placed by your dentist.
- This will restore functionality to your tooth and protect it from fracturing.

② New Technique:

* They are complete in 2 visits -

① 1st visit -

② 2nd visit (Final Restoration)

① 1st visit,

* It is similar to the old

Technique but only filling the

P-T-O

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canal directly with calcium hydroxide
but the calcium hydroxide mixed
with Lignocaine and advise
the patient to come after
15 days.

(2) 2nd visit

* It is also discuss in
old technique similar to the
old technique.

(3)

(1st visit) (2nd visit) (3rd visit)

(1st visit) (2nd visit)

ble at at soliniz is 11 x

at fillig plus had expindant

0-1-9

Q3. A patient came to your clinic with incomplete root formation of mandibular 1st molar. Diagnose the problem and manage it stepwise.

Ans:-

Diagnosis:

- Take a x-ray which show the condition of tooth is open-apex.
- Also come blood in the tooth root canal.

Management of Condition:

* The management is Apexification.

P-To -

5 Steps of the 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 is made to establish the root length accurately. It is important to 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.

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

⑤ There are 2 types of material can be used.

① Calcium Hydroxide

② MTA

But I can choose MTA material step technique.

5 Steps for using of MTA:

* The canal has been opened, rinsed with 5% sodium hypochlorite, dried and calcium hydroxide was then placed in the canal for 1 week.

* 7 days after initial treatment with calcium hydroxide, the incisor was instrumented to remove calcium hydroxide & all the

P-T-O

remaining tissue before further treatment.

* The apical 4 to 5mm of the root has been filled with mineral trioxide aggregate (MTA).

* A moist cotton wool pledget was then placed in the canal overnight and the system temporarily sealed using thermoplasticized gutta-percha using obturation, and a zinc/eugenol dressing.

* Check radiograph was obtained to evaluate the apical seal.

* The Gutta-percha and Cotton wool pledget was removed the following day and a definitive root-filling placed coronal to the MTA using thermoplasticized gutta-percha.

* A temporary restoration has been placed to seal the canal opening.

* At the 6-month and 1-year follow-ups, the clinical and radiographic appearance of the teeth showed restoration of the periapical lesions.

~~_____~~
~~_____~~
~~_____~~

The patient - _____ and _____

_____ and _____

Q4 :- Differentiate all types of pontic thoroughly?

Ans: * Definition of pontic:

• An artificial tooth on a fixed dental prosthesis that replaces a missing natural tooth, restores its function, and usually fills the space previously occupied by the clinical crown.

Function of Pontics:

- Mastication
- Speech
- Esthetics

Types of Pontic:

* There are different types of pontics.

P-T-O

* Mucosal Contact.

- Ridge Lap
- Modified Ridge lap
- Ovate
- Conical

* No Mucosal Contact :

- Sanitary (Hygienic)
- Modified Sanitary

Mucosal Contact :

* Ridge Lap :-

This Pontic resembles a natural tooth. It is designed to adapt closely to the ridge. It is avoided b/c it is difficult to maintain and often leads to inflammation of the tissues in contact.

* Modified Ridge lap pontic :

- The modified ridge lap pontic combines the best designs, combining esthetics with easy cleaning.

* Ovate pontic :

- These pontics are used in cases where the residual ridge is defective or incompletely healed.

* Conical pontics :

- Egg-shaped, bullet-shaped, or heart shaped.

- Concex, with only one point of contact at the center of the residual ridge.

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No - Mucosal pontics :

* Sanitary pontics :

- Zero tissue contact
- Occlusalgingival thickness should be atleast 3mm
- Convex mesiodistally and faciolingually
- Space beneath the pontic - 2mm (Rosenstiel)
- 3mm (Tylman)
- Adequate space for cleaning

* Modified Sanitary pontics :

- Gingival portion is shaped like a concave archway mesiodistally between the retainers and convex faciolingually
- Allows increased connector size while decreasing the stress concentrated in the pontic and connectors
- Recommended for mandibular posteriors

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Q5 ::

Classify dental bridges
and explain its types
briefly ?

Ans :-

Dental bridge and its types:-

Dental bridge :

Definition :

* 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.

Materials for Construction of
Bridge Work :

The following material used for dental bridge.

P - T - O

* Metal

* Metal-Ceramic

* All-Ceramic

* Acrylic

Types of Bridges

① Fixed Bridge

② Fixed Movable

③ Cantilever

④ Spring cantilever

① Fixed Bridge :

* Has rigid connectors at

both ends of pontics which

forms a rigid prosthesis.

Advantages :

• Provides cross arch splinting.

• Ease of handling.

Disadvantages :-

- Possible bending of bridge
- Mobility of abutments may result in open margins.
- All units have to be cemented Simultaneously.

② Fixed Movable Bridge :-

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

Advantages :-

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

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Disadvantages:

- More space required.
- Metal may show occlusally.
- Food impaction.

③ 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, rochette bridge.

Advantages:

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

P-T-O

Disadvantages:

- Length of span is limited to one pontic only.

- Occlusal forces on the pontic encourage tilting of abutment teeth.

- Not successful for posterior prosthesis.

(4) 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

Dislodgment of retainer

Thank you.