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Q:5 DENTAL BRIDES:-

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.

* 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.

Bridges are made of the following material

- Metal
- Metal ceramic
- All-ceramic
- Acrylic

⇒ Types of Bridges:-

- * Fixed Bridge
- * Fixed movable
- * Cantilever
- * Spring Cantilever

⇒ Fixed Bridge

A fixed bridge refers to a pontic which is attached to a retainer at both side of the space with only one path of insertion. This type of design has a rigid connector at each end which connects the abutment to the pontic. As the abutment are connected together rigidly it is critical that during tooth preparation the proximal surface of the abutment teeth must be prepared so that they are parallel to each other.

⇒ Fixed Movable Bridge

It has rigid connector usually at the distal end of the pontic and

a movable connector that allows some vertical movement of the mesial abutment tooth. This enables a more

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Conservative approach as the abutments do not need to be prepared so that are parallel to one and other. Ideally the rigid connector

should attach the pontic to the more distal abutment. The

movable connector attaches the pontic to the mesial abutment enabling this abutment tooth limited movement in a vertical direction.

⇒ Cantilever Bridge:

A cantilever is a bridge where a pontic is only attached to a retainer

only at one side. The abutment tooth ~~is~~ may be mesial or distal to pontic.

⇒ Spring Cantilevers:

The pontic and retainers are remote from each other and connected

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by a metal bar. usually
a missing anterior tooth is

is replaced by and supported
by a posterior tooth. This

design of bridge has been
superseded.

Q4 Types of Pontics:

Mucosal Contact

- * Ridge Lap
- * Modified ridge lap
- * Ovate
- * Conical

⇒ Ridge lap Pontic

Pontic has a remove fitting
Surface that overlaps the

residual ridge buccolingually
simulating the contours and
emergence profile of the
of the missing tooth on

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Both sides of the residual ridge.

⇒ Modified Ridge Lap Pontic:-

The modified ridge lap pontic combines the best feature of

the hygienic and ridge lap pontic designs, combining esthetics with easy cleaning

• The modified ridge lap design overlaps the residual ridge on the facial but

remain clear of the ridge on the lingual.

⇒ Ovate Pontic:-

The ovate pontic is the most esthetically appealing pontic design as it's

convex tissue surface ~~rests~~ resides in a soft tissue depression in the residual

ridge. which makes it

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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 is convex

possible with only one point
of contact at the ~~center~~
center of the residual ridge

This design is recommended for
the replacement of mandibular
posterior teeth where

esthetic is lesser concern.

⇒ Non Mucosal Contact:

- * Sanitary (hygienic)
- * Modified Sanitary

⇒ Sanitary:

- * Zero tissue contact
- * Occlusalgingival thickness should be at least 3mm

- * Concave mesiodistally and faciolingually

- * Space beneath the pontic
2mm (Rosenstiel)
-3mm (Tylman)

- * ~~Adoquat~~ Adequat space for cleaning.

⇒ Modified Sanitary

Gingival portion is shaped like a concave archway mesiodistally between the retainers and

faciolingually.

* Allows increased connective

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Size while decreasing the stress concentrated in the end connectors.

* Recommended for mandibular posteriors.

Q:2

Root Canal Procedure:

Root canal procedure for the maxillary first premolar.

Root Canal:

Root canal treatment is the process of removing the inflamed or infected pulp tissue from within in tooth.

⇒ Root canal procedure:

→ Rubber Dam isolation:

XXXX * H/ ** *
• Isolation of the tooth is accomplished with rubber

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Dam

→ Keeps bacteria debris, instruments etc. from going down the patient throat.

⇒ High-tech instruments:

Files → Hand files
→ Rotary

- Hand files are used with hand for root canal treatment. It is available in, medium, small, long. It starts from 15-40 40-80 while rotary files used in endomotor. files number are Sx, S1, S2, F1, F2, F3.

⇒ Efficient way to clean the canal system significantly reducing operating time

- Able to navigate curved canals due to their flexure.

⇒ Cleaning the canals

we use many instruments of different

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Sizes and different shapes to properly clean and shape specific root canal anatomy.

- * 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 canal of the tooth, a small opening is made either on occlusal surface of the ~~max~~ tooth, or on the lingual for the anterior teeth.
- * In a multi-rooted tooth, gaining access into the root canal is more challenging.
- * With the aid of a microscope we are able to locate any hidden or calcified canals.

→ Final Preparation:

* After Thoroughly cleaning and Shaping the canals, the canals are dried with absorbing paper point.

⇒ Obturation:

Finally, the canals are sealed with two components:

→ Sealer

→ a cement that sets over time

→ 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 that has two parts:

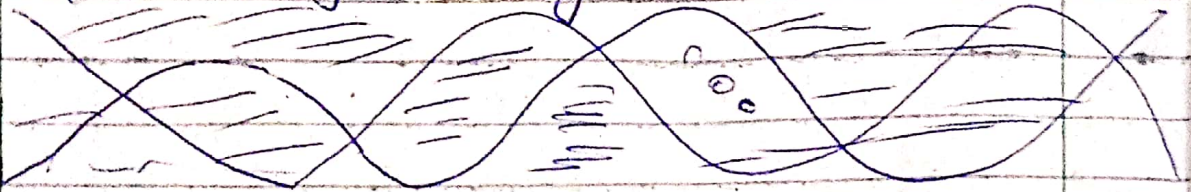
→ Cotton pellet soaked in an antibacterial solution.

→ A solid temporary is placed by the dentist.

→ This will restore functionality

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to the tooth and protect from fracturing.



Q.13

The diagnosed case is apexification and the management is given below.

⇒ Management of Apexification:

Steps:

① The affected tooth is carefully isolated with 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 canal length exactly. It is

important to avoid instrument plaving through the apex.

which may injure the epithelial diaphragm.

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(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 normal saline.

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

⇒ Using OF Ca(OH)₂

* A thick paste of calcium hydroxide is transferred to the

canal. An endodontic plunger may be used to push the material to the apical end

but excess material should not be forced beyond the apex.

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A cotton pledget is placed over the calcium hydroxide and then seal is completed

with a layer of reinforced zinc oxide - eugenol cement.

→ The root canal is required to determine whether the tooth is for a conventional

→ Gutta percha filling

→ if apical closure has not occurred in 6 months the

root canal is retreated with the calcium hydroxide past

if weeping in the canal was not controlled before

the canal was filled, retreatment is recommended

2 or 3 months after the first treatment.

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⇒ USING MTA:

①

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

②

7 days after initial treatment with calcium hydroxide

the molar was instrumented to remove calcium hydroxide

and all the remaining tissue removed before further treatment.

- The apex of the molar 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 obturation, and

a zinc oxide eugenol

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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 Thermo-plasticized gutta-percha.

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

• At 6-month and 1-year follow ups, the clinical and radiographic appearance of

the teeth showed resolution of the periapical lesions.

Q: 10

Possible outcome for missed root canal:

insevero

This is one of the most common reason for a failed root canal procedure in molars 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~~

reported close 75% of the time in the upper first molar.

⇒ Breakage File Management:

This is unfortunate but unknown cause of failure

of Ret where the used to

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Perforation root canal
Treatment is broken in

the canals which lead to
excessive torsion force being
applied.

- In most cases if the
instrument is removed and
Re-root canal treatment

performed or the file is
bypassed which can be

done by an endodontist
with microscope the tooth can

be saved ~~from~~ from
future infection.

