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Paper Operative Dentistry

Submitted to

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Q no (5)

Bridges:-

Any dental prosthesis that is luted, screwed or mechanically attached to natural ~~to~~ 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 artificial teeth definitively to adjacent teeth or dental or dental implants.

Materials for Construction of bridgework.

The following material are used for dental bridges

- Metal
- Metal Ceramic
- All-Ceramic
- Acrylic

Different types of bridges:

- Fixed bridge
- Fixed movable
- Cantilever
- Spring cantilever

Fixed bridge:

Has rigid connectors at both ends of pontics which form 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.

Fixed movable:

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 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.

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.

Disadvantages :-

- Length of span is limited to one pontic ~~encourage~~ ti only.
- Occlusal forces on the pontic encourage fitting of abutment tooth.
- Not successful for posterior prosthesis.

Spring Cantilever.

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

Disadvantage ::

- Food Impaction under metal
- Fracture and metal connector
- Dislodgment of Retainer -

Q no (4)

Differentiate all types of pontic thoroughly?

① Tjiman - pontic is the suspended member of a fixed partial denture it replaces the lost natural tooth restores function and occupies the space of the missing tooth.

② Smooth surfaced and convex in all directions

→ Easy cleanable

→ pinpoint pressure free contact on the ridge.

→ No irritation to the gingival tissue.

- Restore Function
- No abutment overloading
- Color Stable
- Function of patics
- Afo Mastication
- Speech
- Esthetics
- Mucosal Contact

- ① Ridge lap
- ② Modified ridge lap
- ③ Conical

⇒ Afo No mucosal Contact.

- ① Sanitary
- ② modified Sanitary.

① Ridge lap pontic.

This pontic resembles a nature tooth it is designed to adapt closely to the ridge. it avoided because it is difficult to maintain and often lead is to Inflammation of the tissue in contact.

② Modified ridge lap pontic.

The modified ridge lap pontic combines the best features of the hygienic and saddle pontic design, combining aesthetics with easy cleaning.

③ Ovate pontic.

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

④ Conical pontic.

It is recommended for mandibular posterior teeth where esthetics is of lesser concern.

⑤ Modified Sanitary.

It presents a pass free flowing archway in the region adjacent to residual ridge.

Q no (1)

A) Write possible outcome for missed root canal.

The four treatment protocols have been suggested by the literature for management of fractured instruments in root canals

- ① Allowing the Separated Instrument to be retained in Canal and treating the remaining portion of Canal.
- ② Bypassing the Separated fragment and treating the Canal
- ③ Retrieving the Separated fragment and treating the Canal.
- ④ Surgical approach for retrieval of separated fragment followed accordingly.

B) A patient came for root canal treatment of maxillary^{2nd} molar during procedure breaking breakage of file occurs in the canal manage the whole procedure.

Outcomes of missed Root canal

⇒ Adverse effect on endodontic outcomes

A) Associated with periapical lesion

b) Severe pain

c) Disruption of lamina dura

d) Failed RCT

e) Post operative periapical lesion.

Q no (2)

Clinically explain root canal procedure for maxillary 1st premolar:

① Isolation with Rubber dam:-

- Isolation with of the tooth is accomplished with a rubber dam -
 - > keeps bacteria in the saliva from entering into the tooth.
 - > prevent debris, instruments, etc. from going down the patient's throat.

② High teeth Instruments:-

- Rotary nickel-titanium files
 - > Efficient way to clean the canal system, significantly reducing operating time.
 - > Able to navigate curved canal due to their flexure.
 - > Cleaning the root canal.
 - we use many instrument of different sizes and different shapes to properly clean and shape your specific root canal anatomy.

⇒ Disinfection of the root canal

① Sodium hypochloride is one

of the disinfectants used to reduce the bacteria load within the tooth

② Specialized blunt and ended needles are used to deliver

these disinfectants are used to deliver these disinfectants to

the ~~at~~ end of the root in a safe and effective way

→ Accessing the root canal..

To gain access to the root canal of the tooth a small opening is made either on the occlusal surface of the tooth or on the lingual side.

→ In a multi-rooted tooth gaining access into the root canals is more challenging.

→ with the aid of a microscope we are able to locate any hidden or calcified canal.

⇒ Final preparation

After ~~thru~~ thoroughly cleaning and shaping the canal the canal are dried with absorbing paper point.

→ obturating

Finally, the canal are sealed with two components -

- Sealer - a cement that sets over time

→ Zutta 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 canal that has two parts.

→ Cotton pellet soaked in an antibacterial solution.

A solid temporary filling on top -

A final restoration is placed by your dentist

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

Q no (1) (3)

Ans: -

To diagnose this case which is a Apexification.

- Apexification is the endodontic procedure performed in order to induce the formation of a physical barrier of mineralized tissue in teeth with incomplete root formation. It is mainly performed when, for any reason, pulpal necrosis occurs in teeth with incomple.

Incomplete root formation and also in those cases where the foramen is open, due to root resorption. In these situations, conventional endodontic treatment becomes difficult or virtually impossible because of the large foramen. The apexification procedure, in these cases, is generally performed by means of successive changes of calcium hydroxide dressings aiming to induce the formation of a physical barrier of mineralized tissue, thus permitting the obturation.

of root canals, the protocol introduced in this article, as well as the clinical cases reported illustrate an option for faster treatment conducted within three sessions, by using a MTA cap or plug material that offers good biological and physical properties.

Management:-

Apexification is a procedure still performed with some frequency with some in endodontics, Although good results are achieved by using calcium hydroxide, with successive dressing change, this technique requires a certain time with the advent of MTA, we have an alternative procedure, which shows good results within a short period of time.