

Date: 9/7/20

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Thursday

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PROGRAMME: BSC (DENTAL
TECHNOLOGY)

SEMSTER : 6th

SUBJECT : PROSTHODONTICS

ASSIGNMENT: OVERDENTURE

SUBMITTED TO: MA'AM
SALMA ISHAQ

JQRA

NATIONAL

UNIVERSITY:

OVER DENTURE:-

INTRODUCTION:-

- Extraction of teeth is followed by continuous ridge resorption and poor denture foundation.
- Loss of periodontal receptors responsible for proper masticatory function and accurate jaw movements.
- Retention of few remaining teeth will preserve alveolar bone, and preserve periodontal receptors.

DEFINITION:-

A removable partial denture or complete denture that covers & rests on one or more remaining natural teeth, the roots of natural teeth or dental implants.

- Tooth supported denture
- Overlay denture / inlay denture
- Telescopic denture
- Superimposed denture

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- Biological denture
- Coping prosthesis.

OR

Over denture, an removable partial denture or complete denture that covers & rests on one or more remaining natural teeth, the roots of natural teeth, and/or dental implants.



Pre-operative



Pre-operative



Post-operative





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CLASSIFICATION OF OVER DENTURE:-

OVER DENTURE

Tooth supported

Implant supported

Non-Capping

Capping

Attachments

short/long

Stud

Magnets

Bar

~~Tissue~~

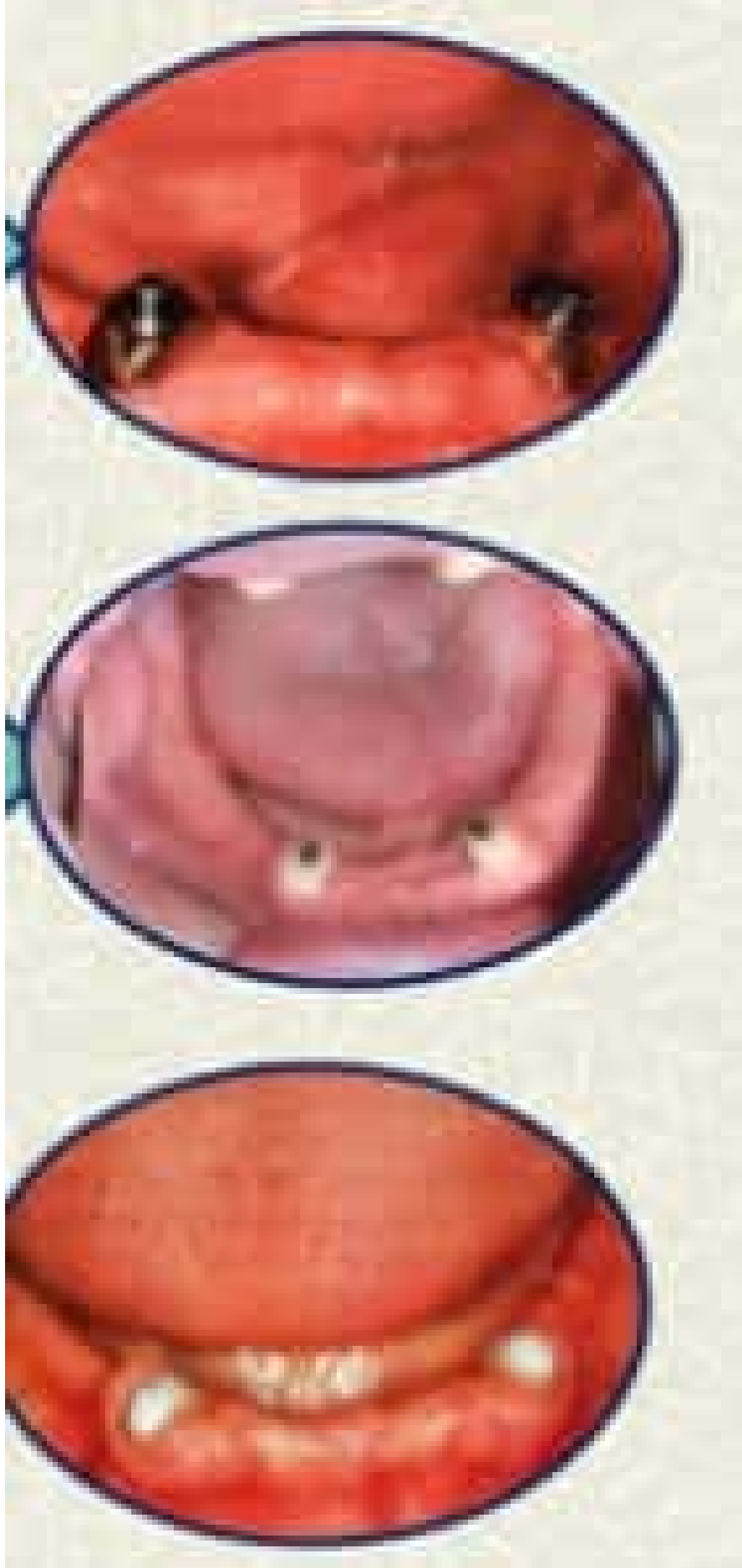
Tissue implant supported

Fully Implant supported

ABUTMENTS FOR TOOTH SUPPORTED OVER DENTURE:-

- 1- Abutment with telescopic crowns
- 2- Dome shaped Abutments with cast coping
- 3- Abutments with slight Tooth Reduction & Cast.
- 4- Abutments with an added form an attachments
- 5- Dome shaped abutments with amalgam plug.
- 6- Submerged Roots.





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IMMEDIATE OVER DENTURE:-

It is an overdenture that constructed for insertion immediately after the removal of natural teeth. It is constructed for patient with a full complement of natural teeth in ost of which are to be lost. The teeth chosen as abutments are reduced on the cast and the over denture constructed and placed on the day of extraction.



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ANTERIM OVER DENTURE:-

Transition or preparation phase until permanent over denture constructed patient old partial denture can be modified & used by extending the denture and add new artificial teeth using self-cure acrylic resin.



REMOTE OR DEFENSIVE OVER DENTURE:-

A remote overdenture is an overdenture constructed for insertion at some time "remote" from the removal of hopeless teeth. It is placed over well-healed residual ridges, usually after a period of satisfactory experience transitional overdenture. Remote overdentures can be constructed entirely of resin; metal bases are frequently used to increase rigidity and strength.

A. NON-CAPING ABUTMENTS:-

- Selected tooth abutments are reduced to a coronal height of 2 to 3mm. and then contoured to a convex or dome shaped surface.
- Most teeth required endodontic therapy and in final step are prepared conservatively to receive an amalgam or composite type restoration.



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B. ABUTMENTS WITH COPINGS:-

- Cast metal coping with a dome shaped surface and a chamfer finishline at the gingival margin are fabricated and cemented.

TYPES:-

- 1- Short cast copings
- 2- Long cast copings





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B ABUTMENTS WITH COPINGS:- ATTACHMENTS:-

Attachments are small precision devices. Objective is to improve retention of denture base. Most attachments are secured to abutments by a cast coping.

Consist of two parts.

- Male
- Female.



Overdentures with Attachments

TYPES OF ATTACHMENTS:-

A- RIGID ATTACHMENTS:-

Doesn't allow movement of denture base provide adequate retention. May induce more torque on abutment.

B- RESILIENT ATTACHMENTS:-

Allows some control of movements. Induces less torque abutments.

OVER DENTURE ATTACHMENTS:-

1- STUD ATTACHMENTS:-

Consists of two parts

The stud usually attached to metal coping cemented over prepared abutments.

Housing embedded in the fitting surface of over denture.

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① STUD ATTACHMENTS:-

② EXTRA - RADICULAR:-

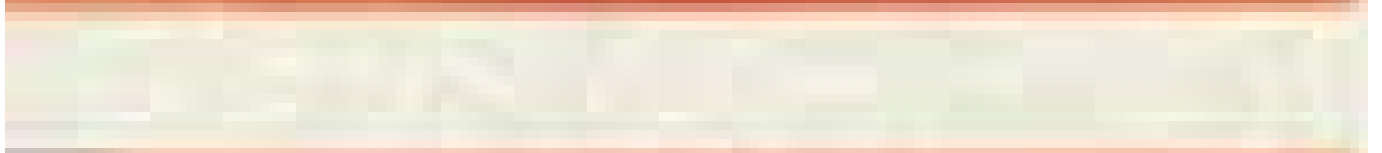
The sub is attached to the metal coping cemented over the prepared abutments, while the housing is embedded in the fitting surface of denture.



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BINTRA RADICULAR:-

The sub is attached to the fitting surface of the denture and the housing is incorporated in the abutments.



2-BAR ATTACHMENTS:-

A bar contoured to connect abutment teeth together, run parallel & overlies residual ridge. Provide support & retention for overdenture & splint abutment teeth. Bars may be in form of preformed metal or plastic.

BAR UNITS:-

Rigidity fixed to copings, don't allow any movement between bar & sleeve transmits occlusal stresses totally to abutments "tooth box".

BAR JOINT:-

Resilient attachments allowing support provided by ~~teeth~~ both residual ridge & abutment teeth "tooth tissue box".





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3- MAGNETIC ATTACHMENT:-

• Small, strong mini magnets one of poles cemented in a prepared cavity in endodontically treated abutment & the other attached to denture base.



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2- IMPLANT SUPPORTED OVERDENTURES:-

- A removable implant-over denture is a prosthesis which is removable by the patients and is supported or retained by dental implants.
- The prosthesis has to be removed for the purpose of cleaning around the abutments.

TYPES OF IMPLANT OVERDENTURE:-

① TISSUE IMPLANT SUPPORTED:-

- In the mandible a minimum of 2 implants.
- In the maxilla a minimum of 4 implants.

- Age indicated for this type of an overdenture.
- The attachments give retention to the prosthesis.
- In eating, the ridge receives masticatory forces.
- The tissue supported implant overdenture is useful in cases where the presenting problem is that of denture movement.



2. FULLY IMPLANT SUPPORTED-

- In the mandible a minimum of 4 implants.
- In the maxilla a minimum of 4/6 implants.
- During mastication, the attachments assembly transfers all the masticatory forces to the supporting implants.
- This type of implants overdenture is particularly appropriate for patients who present with considerable functional difficulty and pain while functioning on their dentures.



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TREATMENT:-



Complete denture



Implant supported implant overdenture

Treatment Options

Fixed detachable ('hybrid')



Tissue supported implant overdenture



ATTACHMENTS:-

- FEMALE PORTION Prosthesis.
- MALE PORTION Implants

BALL ATTACHMENTS.

- O-ring style
- Locator System

BAR & CLIP ATTACHMENTS.

- CM, Bar & Rider / Ackerman clips
- Dolder Bar System
- Hader Bar System / EDS system.

INDICATIONS OF OVERDENTURE:

- Patient with badly worn teeth.
- Patient with few natural remaining teeth.
- Poor prognosis for routine complete denture.
- Congenital or acquired intra oral defects.
- Mandibular arch where loss of bone is more rapid.
- Edentulous maxilla opposing intact mandibular dentition.
- Post traumatic or post surgical cases.
- Severe ataxion and loss of vertical dimension.

- Young patient
- Cleft causing large free way space.
- Hypodontia
- Tooth wear cases.

CONTRA INDICATIONS OF OVERDENTURE:-

- High caries index
- Poor oral hygiene
- Poor prognosis of abutment
- Reduced inter-arch space
- Undercuts.
- Sufficient attached gingiva not present.
- Where endo and perio treatment cannot be performed satisfactorily
- Grade III mobility.

IMPRESSION FOR THE DENTURE:-

- Follows the same technique that is used in constructing a conventional complete denture.
- PRELIMINARY IMPRESSION
- BORDER MOLDING
- FINAL IMPRESSION.







TOOTH SELECTION:-

• Artificial teeth placed over the abutment teeth should be acrylic resin.

i- Gold occlusal surfaces ---

occlusal surface of artificial teeth should be either gold or acrylic resin, preferably gold.

ii- Restored with porcelain ----

porcelain artificial teeth are preferred.

iii- Natural teeth --- Gold occlusals are preferred, otherwise acrylic.



TRYING THE DENTURE:-

- Verify jaw relation records
- Make eccentric jaws relation records and adjust the articulator.
- Assure esthetic acceptability by the patients.
- Verify Phonetics acceptability.

LABORATORY PROCEDURES:-

- Contour the wax
- Flask the denture
- Eliminate the wax
- Prepare resin
- Packing
- Relief for marginal gingiva.

ADVANTAGES OF OVERDENTURE:-

- Ridge preservation
- Proprioception
- Superior patients acceptance
- Open palate possible
- Definitive vertical stop for denture base.
- Support, stability and retention are improved
- Less trauma to supporting tissues.
- Fewer post insertion problems.

than conventional complete denture.

- Conversion to complete denture.
- Feels more like having teeth
- More retentive in many case.

DISADVANTAGES OF OVERDENTURE:-

- Caries susceptibility.
- Periodontal disease around abutments.
- Bony undercuts.
- Encroachment of inter occlusal distance.
- Meticulous oral hygiene is required.
- Time consuming.
- Technique sensitive.
- Require special material & attach material.
- More bulky than periodontal fixed or removable partial dentures.
- Periodontal breakdown of the abutment teeth.
- More expensive.