Fall Rounds 2020

Group 4A-3
10/28/2020

Rounds Team

- **Group Leader: Dr. Grady**
- **Specialty Leader: Dr. Hjertstedt**
- **Project Team Leader: Alex Karkazis**
- **Project Team Participants: Tiffany Joseph, Krishna Shah, Max Reisner**

Patient Background

- 75 year old male
- Caucasian
- Chief Complaint: “My lower partial is hard to chew with and I’ve been told that I need a new bridge up top”.

Medical History

- Osteoarthritis
- Left Hip replacement (2015)
- Pulmonary embolism (1982)
- Nasal polyps
- Depression

Dental History

- Extractions
- Crown & Bridge

Radiographs

Radiographs

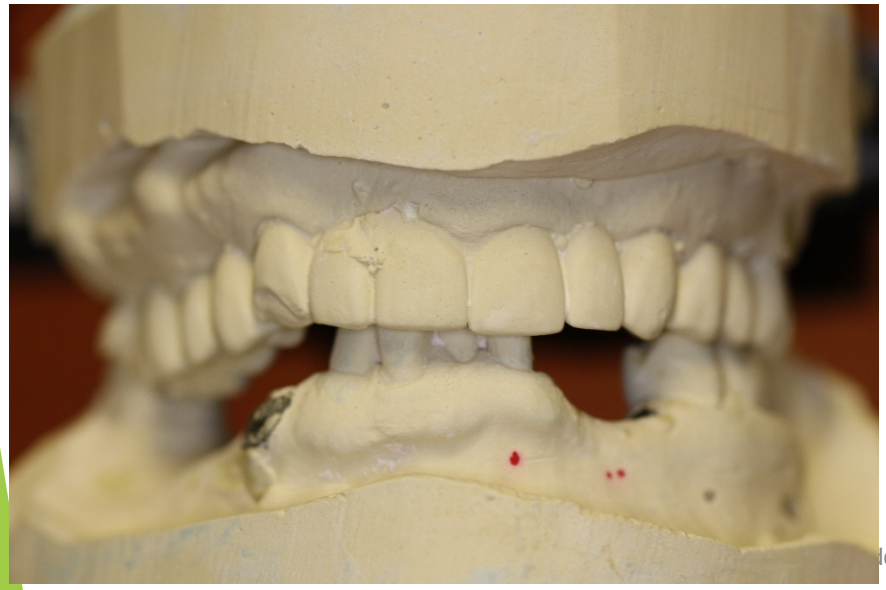
- Full mouth series (BWX & PAX)
- Although all BWX and periapical radiographs could be placed on this slide, it will be hard to read.
- Recommendations:
  - Show overall FMX on this slide
  - Show necessary close-up views on separate slide(s)
  - Zoom in on, or enlarge, relevant views of areas of interest.
  - Insert arrow, or other indicator, to draw attention to findings. Correlate with list of pertinent radiologic findings.

Radiographic Findings

- Caries: 19, 20, 24, 27, 28, 32
- Furcation: 19
- Widened PDL: 3, 19
- Bone levels: <2 or 2-4 mm

Clinical Findings

- 2 defective restoration
- 12 defective restoration
- 19 D recurrent decay
- 20 D recurrent decay
- 24 DL caries
- 24-27 incisal wear
- 27 D decay
- 28 gross decay
- 32 MO caries



Per

- Ensu
- Hig

area

/indow Help

EHR - Perio - Pinney, Richard (624173)

Chart | In Progress | Tx History | Forms | Attachments/Consents | Perio | Tx Plans | Medications | Labs

																MOBILITY
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					B	B						B B	B			BOP
P P P					P P	P P	P					P	P			PLAQUE
																FURCA
																MOBILITY

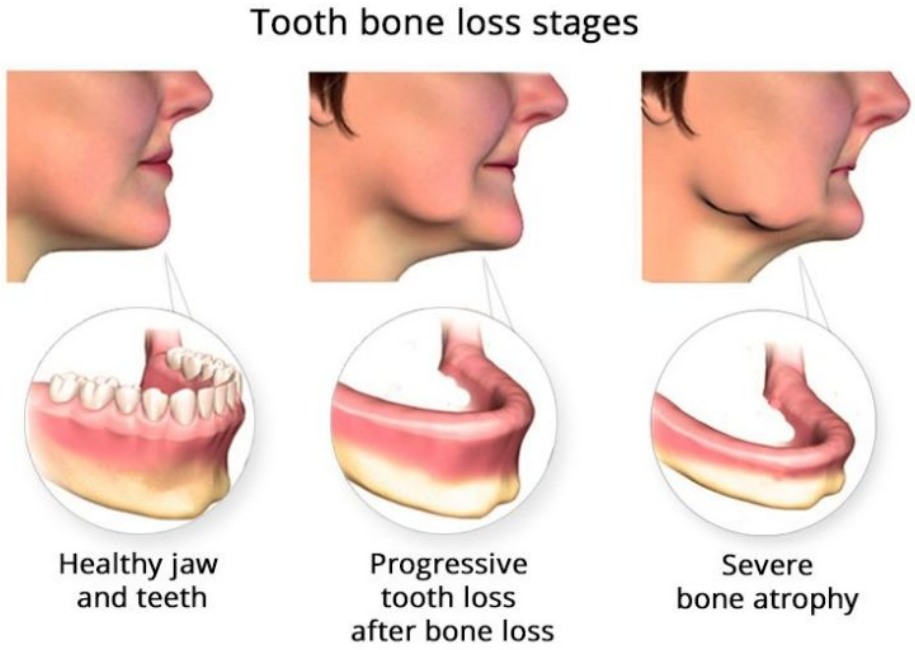
Diagnosis

- Periodontal: Stage II Periodontitis, Grade B Progression

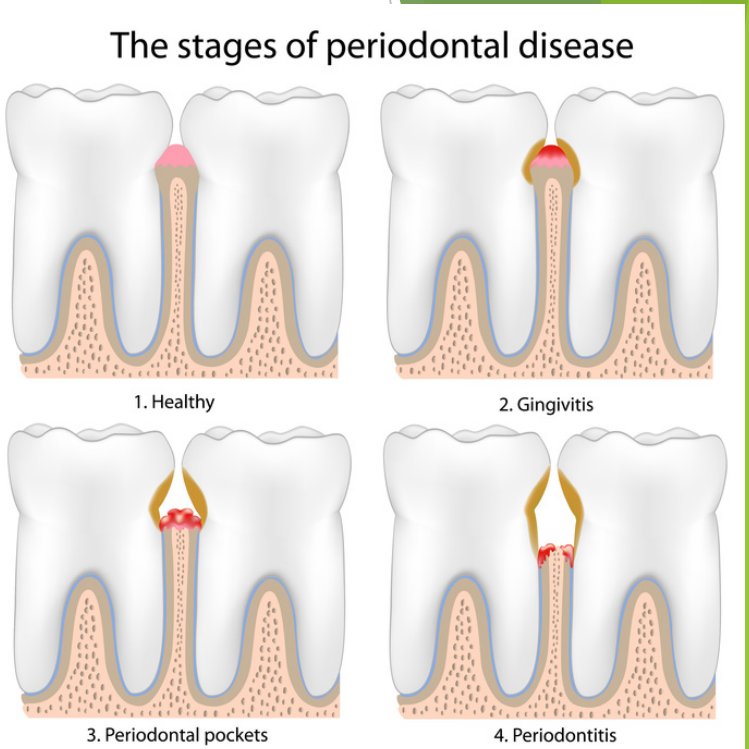
Problem List

- Homecare
- Esthetics
- Missing Teeth
- Caries
- Gross caries
- Crowding
- Existing partial is defective
- Periodontal disease

How does alveolar bone change as we age?



https://luxden.com/missing-teeth-or-tooth-bone-loss/tooth-bone-loss/



http://huntingtondentalspecialties.com/index.php?option=com_content&view=article&id=36&Itemid=38

- Loss of teeth cause resorption of alveolar bone
  - loss of teeth related to disease or trauma
- Periodontitis and osteoporosis contribute to alveolar bone loss
- Aging is not direct cause of alveolar bone loss
  - age is a factor not the cause
- Alveolar bone will become smaller, because of reduction of mandible

D2 Pathology Question

What is peri-implantitis?

Peri-implantitis is defined as the inflammation of hard and soft tissues that surround an implant that cause marginal bone loss, increased pocket formation around the implant, and poor osseointegration between bone and the implant.

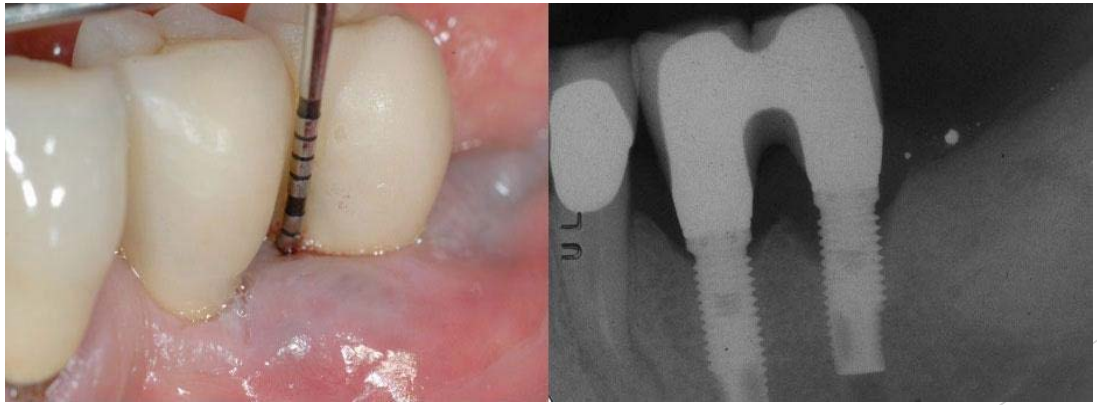
Cause and Clinical Presentation

Causes:

- Amount of plaque
- History of periodontitis
- History of implant failure
- Design of implant
- Soft tissue defect
- Diabetes and smoking

Clinical Presentation:

- Peri-implant signs of inflammation (swelling, redness, BOP)
- Radiographic bone loss after healing was shown
- Increased probing depth after implant placement



Treatment

- Non- Surgical
  - Mechanical removing
  - Using antibiotics and antiseptics
- Chemical Agents
  - Hydrogen Peroxide
  - Saline
  - Citric Acid
- Surgical Methods
  - Resective Surgery
  - Implantoplasty

D3 PICO

- **Clinical Question: In geriatric patients missing key teeth, are implant assisted RPDs more successful than conventional RPDs**

PICO Format

P: Geriatric patients missing mandibular teeth

I: Implant assisted RPD

C: Conventional RPD

O: Long term success

PICO Formatted Question

- In geriatric patients who need replacement for missing mandibular teeth, are implant assisted RPDs more successful long-term compared to conventional RPD's

Clinical Bottom Line

- Implant assisted RPDs should be offered to this patient as the treatment of choice over a conventional RPD.

Search Background

- **Date(s) of Search: 9/30/20, 10/19/20**
- **Database(s) Used: NCBI**
- **MESH terms:** Dental prosthesis, Implant-supported; Denture, partial, removable; Tooth loss; Dental prosthesis design; Jaw, edentulous, partially

Article 1 Citation, Introduction

- Citation: Chatzivasileiou K, Kotsiomiti E, Emmanouil I. Implant-assisted removable partial dentures as an alternative treatment for partial edentulism: a review of the literature. Gen Dent. 2015 Mar-Apr;63(2):21-5. PMID: 25734282.

- Study Design: Systematic Review of Randomized Control Trials

- Study Need / Purpose: To review and present the existing knowledge about critical aspects of implant assisted removable partial dentures.

Article 1 Synopsis

- Method: Review of studies on restoring a partially edentulous maxilla or mandible with an RPD with at least 1 implant
- Results: RPDs in conjunction with implants appear to be a viable alternative to restore partially edentulous patients.

Article 1 Synopsis

- Conclusions: Implant assisted RPDs should be considered when planning prosthodontic treatment for partially edentulous patients

- Limitations: More robust and long term studies need to be completed to determine predictability of implant assisted RPDs

Article 1 Selection

- Reason for selection: This review looked at different aspects of implant assisted RPDs
- Applicability to your patient: This review provides supportive evidence for implant assisted RPDs
- Implications: An implant assisted RPD should be considered when playing to restore a partially edentulous patient

Article 2 Citation, Introduction

- Citation: Omura AJ, Latthe V, Marin MM, Cagna DR. Implant-assisted removable partial dentures: practical considerations. Gen Dent. 2016 Nov-Dec;64(6):38-45. PMID: 27814254.

- Study Design: Systematic Review of Randomized Control Trials

- Study Need / Purpose: Analysis of aspects of diagnosis, treatment planning, clinical management, laboratory execution, and maintenance to obtain optimal results with implanted assisted RPDs

Article 2 Synopsis

- Method: Review of articles that detail diagnostic, treatment planning, clinical, laboratory, and maintenance considerations for successful implant assisted RPDs
- Results: The addition of implants to the partially edentulous foundation can improve support, comfort, and esthetic of an RPD resulting in elevated patient satisfaction and improved therapeutic success

Article 2 Synopsis

- Conclusion: Implant assisted RPDs to patients should not be the treatment of choice when compared to conventional RPDs
- Limitations: More long term studies are need to analyze the survival of implants used in implant assisted RPDs

Article 2 Selection

- Reason for selection: This review presented details for practitioners on how to effectively restore partially edentulous patients with implant assisted RPDs
- Applicability to patient: This review detailed benefits of implant assisted RPDs over conventional RPDs
- Implications: An implant assisted RPD when done correctly can alleviate many of the issues presented with a conventional RPD

Article 3 Citation, Introduction

- Citation: Mijiritsky E. Implants in conjunction with removable partial dentures: a literature review. Implant Dent. 2007 Jun;16(2):146-54. doi: 10.1097/ID.0b013e3180500b2c. PMID: 17563505.

- Study Design: Systematic Review of Case Control Studies

- Study Need / Purpose: Review literature regarding the use of implants with RPDs to evaluate evidence based indications for this clinical approach

Article 3 Synopsis

- Method: Review of articles focusing on the use of implants with RPDs
- Results: A limited number of strategically placed dental implants in conjunction with remaining dentition can establish a significantly more favorable RPD design

Article 3 Synopsis

- Conclusions: The use of implants to improve unfavorable RPD design and esthetics is a viable solution for a partially edentulous patient
- Limitations: Further research with controlled prospective clinical trials is needed to assess longevity

Article 3 Selection

- Reason for selection: This article looked at benefits of including implants in an RPD design
- Applicability to your patient: Using an implant assisted RPD design should be considered when discussing treatment options
- Implications: An implant assisted RPD is a treatment option that should be considered for its benefits over a conventional RPD

Levels of Evidence

- [x] **1a** – Clinical Practice Guideline, Meta-Analysis, Systematic Review of Randomized Control Trials (RCTs)
- [ ] **1b** – Individual RCT
- [ ] **2a** – Systematic Review of Cohort Studies
- [ ] **2b** – Individual Cohort Study
- [ ] **3** – Cross-sectional Studies, Ecologic Studies, "Outcomes" Research
- [x] **4a** – Systematic Review of Case Control Studies
- [ ] **4b** – Individual Case Control Study
- [ ] **5** – Case Series, Case Reports
- [ ] **6** – Expert Opinion without explicit critical appraisal, Narrative Review
- [ ] **7** – Animal Research
- [ ] **8** – In Vitro Research

Strength of Recommendation Taxonomy (SORT)

■	**A** – Consistent, good quality patient oriented evidence
□	**B** – Inconsistent or limited quality patient oriented evidence
□	**C** – Consensus, disease oriented evidence, usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening

Conclusions: D3

Based on the above considerations, how will you advise your D4?

- When discussing treatment options with this patient you should present an implant assisted RPD. The benefits of going with an implant assisted RPD can alleviate many of the issues associated with a conventional RPD.

Conclusions: D4

- Home care
- Ownership of treatment
- Regular perio recall

Discussion Questions

- 1-2 slides
- List posted discussion questions
- Questions may also be from Group Leader or Specialist

Discussion Questions

THANK YOU