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143RD

CHICAGO DENTAL SOCIETY
MIDWINTER MEETING

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SCIENTIFIC PROGRAM: FEBRUARY 21 – 24, 2008
EXHIBIT DATES: FEBRUARY 22 – 24, 2008

COURSE F10
OVERDENTURES: THE EASY ENTRANCE INTO IMPLANT TREATMENT

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THURSDAY, FEBRUARY 21, 2008

CHICAGO DENTAL SOCIETY MIDWINTER MEETING COURSE EVALUATION

SPEAKER: _____ DATE: _____

SUBJECT: _____ NUMBER OF ATTENDEES: _____

PLEASE RATE YOUR SPEAKER AS TO:	Excellent	Good	Fair	Poor	N/A
SUBJECT SELECTED	4	3	2	1	0
TIMELINESS OF SUBJECT	4	3	2	1	0
COMPREHENSIVENESS	4	3	2	1	0
MEETING YOUR EXPECTATIONS	4	3	2	1	0
CONTENT LEVEL	4	3	2	1	0
DELIVERY	4	3	2	1	0
VOICE QUALITY	4	3	2	1	0
HOLDING YOUR INTEREST	4	3	2	1	0
APPROPRIATE AUDIOVISUALS	4	3	2	1	0
EFFECTIVE AUDIOVISUALS	4	3	2	1	0
OVERALL EVALUATION OF SPEAKERS	4	3	2	1	0
OVERALL EVALUATION OF THE PROGRAM	4	3	2	1	0
SHOULD THIS SPEAKER BE INVITED FOR FUTURE MEETINGS?	YES	NO			

WHAT TOPICS INTEREST YOU FOR THE FUTURE? _____

COMMENTS (use reverse if you need additional space): _____

_____

_____

NAME (REQUESTED BUT NOT REQUIRED—PLEASE PRINT): _____

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OVERDENTURES

The Easy Entrance Into Implant Treatment

The Standard of Care

February 21, 2008

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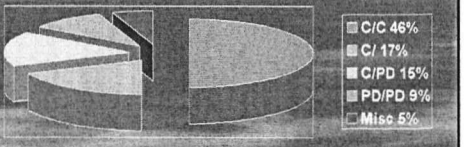
Program Outline

- Demand and Standards
- Overview of overdentures
- Treatment planning
- Procedure
- Complications

Patterns of edentulism



STANDARD of CARE

- McGill University Consensus Symposium on Overdentures, May, 2002
- *There is now overwhelming evidence that a two-implant overdenture should become the first choice of treatment for the edentulous mandible*
- Ethics requires the presentation of the implant option to all patients with lower dentures

Implant Overdentures

The Standard of Care for Edentulous Patients
J.S. Feine, G.E. Carlsson. Quintessence

- Complete upper & lower dentures reduce biting force to 20%
- Complete upper denture with lower implant overdenture restore chewing efficiency (by blood nutrients) to 95%
- Nutrition is enhanced in several ways

Overview of Overdentures

- They preserve bone
- Tooth supported have a poor prognosis and low function
- Implant supported restore function at a high level
- Enhance retention, stability and fit
- **DECREASE PO ADJUSTMENTS**

Overview of Overdentures

- Saves money over 10 years-good long term investment-fewer remakes
- Denture adhesive costs $500 million/year
- Increased patient satisfaction (with you)
- No decay, no perio, no endo
- Avoids compromising other teeth
- Increased self-esteem

Overview of Overdentures

- Surgery is easy
- Location can be compromised
- Angulation can be compromised (40°?) This is not a goal & creates problems.
- Shorter than short implants can be used

Overview of Overdentures

Implants do not compensate for a poorly constructed prosthesis

Occlusion and fit are more critical

A good treatment plan is critical

Why should you treatment plan overdentures?

- Standard of care
- Conservative
- Provides new support
- Consumer demand
- Smart business

Quality of Life

- Does anyone place a value on quality of life?
- How do you place a value on quality of life?
- Who's quality of life is more valuable, your kids, yours, your mother's, or your grandmother's?

TREATMENT PLANNING
THE MANDIBLE

- You must start with an excellent denture situation (likely remake C/C)
- Two implants are all you need
- Between the mental foramen
- You might plan for the possibility of additional fixtures for a fixed treatment
- **BARS ARE FOR DRINKING, $$$, and screwing the patient (in general)**

Bars are for drinking

Lyndon Cooper, UNC

- For malposed implants
- For the maxilla – maybe
- There is no evidence to suggest an advantage in splinting to other implants or teeth in the mandible
- Costly, hygiene is difficult, tissue hyperplasia is very common
- Passive fit is essential
- Requires excessive space within the acrylic

TREATMENT PLANNING

THE MANDIBLE

- Three or more implants create complex rotational paths and maintenance issues
- Locator attachments last for 60,000 cycles
- ERAs last for 8500 cycles
- O rings are for plumbers
- Metal wears metal
- 1mm tissue height is ideal

TREATMENT PLANNING

also for

the questionable dentition

for distal extension support

adverse fixture location

TREATMENT PLANNING

THE MANDIBLE

- A panoramic study works well for most
- Medical review (Fosamax and impending death)
- Anatomical review
- An implant stent is a necessary part of the restorative treatment plan

TREATMENT PLANNING

THE MAXILLA

- It's not a very good place to start
- There are no good studies about the efficacy of maxillary overdentures
- Don't expect good longterm success with two implants
- Four well placed implants will not be as successful as a fixed treatment on six

PROCEDURE

1. Exam, medical review, study casts
2. Panoramic radiograph with markers (on a better than average denture) to locate the foramen. *Use foil strips, SS balls, etc*
3. Treatment plan
4. Case presentation

What about fees?

- You will save a great deal of time on POs
- /C fee + hardware + stent + 3 mos post surg adj – PO
- Restorative fees should be "pending abutment evaluation"
- You can always give a refund

Case Presentation

- DISCUSS VALUE FIRST
- Enhanced chewing, stability and comfort
- Preserves irreplaceable bone
- Most lower overdentures pay for themselves in less than 10 years; fewer relines and remakes
- Place a value on quality of life (the tooth fairy story helps)

Spin Selling
Neil Rackham

Situation (no teeth)

Problem (no support/retention)

Implication of the problem (loss of bone/function/comfort)

Need (support/root replacement)

Payoff (quality of life, preservation of treatment money)

PROCEDURE

5. Specialty coordination: *The state of art is the restoratively driven implant.* This places the responsibility on the restorative dentist to coordinate patient, laboratory and surgical needs.

Who drives the treatment?

- The surgery should be restoratively driven.
- Surgeons should not be put in the position of designing the restoration, the implant location, or fabricating the stent.
- It is difficult to maintain accurate position when doing freehand surgery and surgeons do not make dentures.
- They will help with the biologic factors: bone factors, med hx, healing, etc

PROCEDURE

- 6. Implant needs: How many? How wide? How long? What surface? What platform? What attachment do you want to use?

Biomechanics

- Removable prostheses move
- Movement causes wear
- Soft tissue adaptation must be mucostatic to protect the implants & attachments
- Complex rotational axis create problems
- The mandible flexes (avoid additional implants distal to the premolars)

Biomechanics

- Length:10-15mm
- Diameter is more important than length
- Bone quality is important
- Implant surface is significant
- Smoking (≥1 pk/d) is a problem

How many implants do you need?

Do you want an easy and cheap tx or not?

- Two will make the 95% of previous denture wearers ecstatic and only has one fulcrum line.
- Three can create problems with the center attachment or implant.
- Four (6 fulcrums) and would be better treated with a fixed bridge.

7. Stent Design

Incorporate hardware within the acrylic.
Did you need an alveo?

- Duplicate denture with 2mm holes for casual surgeons *or*
- baseplate with SS sleeves for casual surgeons or
- holes for the most experienced who remember what // & ⊥ means

Stent Design

or implant location

- Alveo-5mm for virgin patient (Locator requires 2.5 mm)
- Crest of ridge
- Axis of implant to be within mandible
- Hardware to be within denture base
- ≥ 5mm medial to mental foramen
- Consider arch curvature
- Consider adding future implants for fixed tx.

Stent fabrication

1. Mark the ridge crest on the cast
2. Mark implant position
3. Set surveyor tilt for angle of bone
4. Drill dimples
5. Set SHP bur with SS sleeve
6. Attach to resin baseplate
7. Smooth & polish
8. Remove & replace SS sleeve

PROCEDURE

8. Surgery
9. Post surgical adjustment

Post surgical Adjustment

- 24-48 hours
- Ream out denture: 2-3mm of space
- Soft liner (Coesoft)
- Hygiene instructions: brush & gauze
- Prophylaxis q 3 mos the first year
- PO @ 1 wk, 1 mo,
- Start new /OC at 2 mos, torque @ delivery
- Reline at 3 mos

PROCEDURE

10. Attachment selection :
    1mm above tissue
    within 10°-15° //
    fixed tissue is best

Locator procedure

1. Deliver abutment
2. Place impression coping on abutment
3. Impression-rigid material
4. Insert impression analogue & pour
5. Process overdenture

Locator components

- Clear 5 pounds
- Pink 3 pounds
- Blue 1.5 pounds
- Green pounds 40°
- Red

12. Laboratory

- The lab work is no better than your treatment plan, fixture placement, directions and casts.
- The best lab can't make a silk purse out of a sows ear.
- Make sure that they use the white ring
- Have a basic understanding of the lab process

Impression or "clinical pickup"

- Easier
- Less risk
- More accurate attach/tissue relation
- Usually needs a reline anyway
- Requires less skill and luck
- Quicker
- Cheaper (if it works)

12. Deliver prosthesis

- PIP and occlusal adjustment
- Remove black processing piece with *HOOK*
- Start with the Pink Locator or select according to patient needs

13. PO adjustments & Recare

- You may need to change attachment @ PO
- Prophylaxis every 3-12 months
- Annual recare with new attachment
- Evaluate for annual reline
- Evaluate tooth wear and occlusal change
- Tap on attachment
- Medical history update

COMPLICATIONS

- Soft tissue health
- Tooth wear
- Lack of retention
- Fracture of denture base
- Wear of components (poor placement)
- Bone loss: vertical or horizontal
- Loosening of components

SUMMARY

- Implant retained **mandibular** overdentures are the STANDARD of CARE. Complete lower dentures and partial dentures replacing all posteriors are doomed.
- A multidisciplinary team with lab & surgeon is more essential than with other txs
- Locators make for ease and success.
- Overdentures require maintenance.

SUMMARY

- Maxillary overdentures are controversial and lack evidence base
- Bars are for drinking
- O rings are for plumbers
- Metal wears metal
- It is the responsibility of the restorative dentist to guide the treatment plan and fixture position