Examination of Implant Patient

Chief Complaint:
- My maxillary left premolar is hurting

Dental History:
- History of periodontal disease

Habits:
- Smoker (<10 cig/day)
- Bruxer

Medical Hx:
- Unremarkable
Examination of Implant Patient

Extraction and Bone Graft

Extraction and Bone Graft

Extraction and Bone Graft
Which Radiograph?

<table>
<thead>
<tr>
<th></th>
<th>PA &amp; PANORAMIC</th>
<th>CONE-BLAM C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of Placement</td>
<td>Delayed or Early</td>
<td>Immediate Placement</td>
</tr>
<tr>
<td>Anatomical Structure</td>
<td>No Proximity</td>
<td>Close Proximity</td>
</tr>
<tr>
<td>Ridge Morphology</td>
<td>Predictable &amp; Favorable</td>
<td>Unpredictable or Unfavorable</td>
</tr>
<tr>
<td>Esthetic Demand</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Guided Surgery</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Radiation Exposure

<table>
<thead>
<tr>
<th>Natural Radiation Exposure</th>
<th>Exposure (µSv) based on factor</th>
<th>Comparable to natural radiation exposure for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily exposure to natural radiation</td>
<td>8 µSv</td>
<td>~ 1 day</td>
</tr>
<tr>
<td>Flight: 10 hours</td>
<td>80 µSv</td>
<td>~ 16 days</td>
</tr>
<tr>
<td>Single reminder x-ray box</td>
<td>8 µSv</td>
<td>~ 1 day</td>
</tr>
<tr>
<td>Incomplete full mouth series (PFM crown)</td>
<td>170 µSv</td>
<td>~ 22 days</td>
</tr>
<tr>
<td>2-D Panoramic (digital)</td>
<td>14 - 24 µSv</td>
<td>~ 2 - 3 days</td>
</tr>
<tr>
<td>3-D Cone Beam (includes multiple FOV)</td>
<td>66 - 1375 µSv</td>
<td>~ 8 - 124 days</td>
</tr>
<tr>
<td>3-D Cone Beam (9-CAT 3.3 used, 3D Intra)</td>
<td>87 µSv</td>
<td>~ 11 days</td>
</tr>
<tr>
<td>Medical CT of skull (Tomoscan MDCT)</td>
<td>885 µSv</td>
<td>~ 126 days</td>
</tr>
</tbody>
</table>

Implant Treatment Planning
Implant Placement

Implant Impression

Open Tray
Closed Tray

More Control
Easier

Implant Impression

Open Tray

Step 1
Step 2
Step 3
Step 4
Step 5

Implant Impression

Close Tray

Step 1
Step 2
Step 3
Step 4
Implant Impression

Open Tray  Closed Tray

Abutment Selection

Stock Abutment  Anatomical

<table>
<thead>
<tr>
<th>Esthetic</th>
<th>Less options</th>
<th>Better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>Difficult remove</td>
<td>Easier to remove</td>
</tr>
<tr>
<td>Angled</td>
<td>No options</td>
<td>Up to 15°</td>
</tr>
<tr>
<td>Cost</td>
<td>~$155-170</td>
<td>~$210-265</td>
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</table>

Abutment Selection

Max 4 mm  Max 2 mm

Abutment Selection

Abutment Selection
Final Restoration

Try-in the abutment, hand torque
Take an x-ray to verify fit
Try-in crown, pressure for 2 minutes
Adjustment in following order:
Internal
Contact points
Occlusion
Torque Abutment at 35 N/cm

Final Restoration

Cement crown:
Zinc-eugenol cement (TempBond)
Zinc Phosphate cement

Final Restoration

Occlusion:
Light contact in maximum intercuspatation
No guidance on excursion
(or group function)

Final Restoration
Thank You!

Examination of Implant Patient

Chief Complaint:
My front tooth is moving

Dental History:
Active infection tooth #18

Habits:
Bruxer

Medical Hx:
Unremarkable
Examination of Implant Patient

Extraction and Bone Graft

Extraction and Bone Graft

Extraction and Bone Graft
Extraction and Bone Graft

Implant Treatment Planning

Implant Treatment Planning

Implant Treatment Planning

Tissue Level | Bone Level

What to treatment plan?
Implant position in anterior maxilla to create emergent profile
create a triangular emergence profile for a round implant
Which Radiograph?

<table>
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<th>PA &amp; PANORAMIC</th>
<th>Cone Beam CT</th>
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<tr>
<td>Flight: 10 hours</td>
<td>80 µSv</td>
<td>~ 7 days</td>
</tr>
<tr>
<td>Single session roentgenoscopy</td>
<td>8 µSv</td>
<td>~ 1 day</td>
</tr>
<tr>
<td>Intraoral full mouth series (FPI, round cone)</td>
<td>170 µSv</td>
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<td>14 - 24 µSv</td>
<td>~ 2 - 3 days</td>
</tr>
<tr>
<td>3-D Cone Beam (includes multiple FDI's)</td>
<td>68 - 1271 µSv</td>
<td>~ 8 - 124 days</td>
</tr>
<tr>
<td>3-D Cone Beam (3-CAT 0.1 second</td>
<td>87 µSv</td>
<td>~ 11 days</td>
</tr>
<tr>
<td>Medical CT of skull (Somatom Sensation 10)</td>
<td>885 µSv</td>
<td>~ 128 days</td>
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*Based on International Commission on Radiological Protection tissue weighting factors 0.75.

Implant Placement
Implant Placement

Implant Impression
- Open Tray
- Closed Tray
- More Control
- Easier

Implant Impression
Customized Impression Coping

Abutment Selection
- Stock Abutment
- Custom
- Profile:
  - Round: Difficult to remove
  - Custom: Easier to remove
- Cement:
  - $155-$170
  - $170-$230
Final Restoration

If planning cement bonded restoration:
Etch intaglio crown surface and abutment

Final Restoration

Try-in the abutment, hand torque
Take an x-ray to verify fit
Try-in crown, pressure for 2 minutes

Final Restoration

Adjustment in following order:
Internal
Contact points
Occlusion
Torque Abutment at 35 N/Cm
Final Restoration

Cement crown:
- Resin cement
- Zinc-eugenol cement (TempBond)
- Zinc Phosphate cement

Final Restoration

Occlusion:
- Light contact in maximum intercuspation
- No guidance on excursion (or group function)

Final Restoration

[Images of dental restorations and procedures]
Thank You!

Dawn
Implant retained overdenture
Locator attachments
Bar

Alessandro Geminiani, DDS, MS

Examination of Implant Patient

Chief Complaint:
I have problem chewing

Examination of Implant Patient

Chief Complaint:
I have problem chewing

Dental History:
Extractions due to periodontal disease
Maxillary and Mandibular complete dentures

Medical Hx:
Bisphosphonates therapy
From 2010
Prosthetic Phase

Apply acrylic to the cap and the denture.

Remove processing rings.

Remove excess of acrylic. Fill void if necessary.

Place retention rings.

Step 7
Dentures fit occlusion

Step 8

Step 9

Step 10

Possible Problems

Patient can flip the overdenture with his tongue.

Lingual Flange Extension

Create space for the tongue to rest on the lingual flange.

Increase retention (change the male component).

Add more implants.

Thank You!