What your dentist wants to know about scleroderma.
MDS: 4600 dentists, 80% of DMDs in MA

Council on Access, Prevention and Interprofessional Relations
Survey of 350 scleroderma patients
(Phyllis, D., Leader, D., and Tao, W., 2011)

Scleroderma patients:

- Have difficulty finding a dentist who is prepared to treat them. (28%)
- Would not recommend their current dentist to other scleroderma patients. (63%)
A survey of dentists’ knowledge and attitudes with respect to the treatment of scleroderma patients

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### Attitude

If I were contacted by a patient who has scleroderma, I would

<table>
<thead>
<tr>
<th></th>
<th>Action</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treat the patient.</td>
<td>120</td>
<td>45%</td>
</tr>
<tr>
<td>2</td>
<td>Refuse to treat the patient.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>Gather more information on scleroderma or on the patient's condition.</td>
<td>133</td>
<td>50%</td>
</tr>
<tr>
<td>4</td>
<td>Refer the patient.</td>
<td>7</td>
<td>3%</td>
</tr>
<tr>
<td>5</td>
<td>I don't know what I would do.</td>
<td>5</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Total**: 265 (100%)
### Results

#### Cross tabulation

<table>
<thead>
<tr>
<th></th>
<th>Knowledge score</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel prepared to treat scleroderma patients. [71% Yes]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>39</td>
<td>31</td>
<td>1</td>
<td>76</td>
</tr>
<tr>
<td>%</td>
<td>6.6%</td>
<td>51.3%</td>
<td>40.8%</td>
<td>1.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>75</td>
<td>80</td>
<td>25</td>
<td>185</td>
</tr>
<tr>
<td>%</td>
<td>2.7%</td>
<td>40.5%</td>
<td>43.2%</td>
<td>13.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>114</td>
<td>111</td>
<td>26</td>
<td>261</td>
</tr>
<tr>
<td>%</td>
<td>3.8%</td>
<td>43.7%</td>
<td>42.5%</td>
<td>10.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Mann Whitney U test $p = 0.04$
If you would like to learn more about scleroderma, how would you prefer to learn about it?

258 of 269 (95.9%) respondents chose at least one.
SURVEY OF AMERICAN DENTAL SCHOOLS ON THEIR CURRICULUM FOR TREATING PATIENTS WITH RHEUMATIC DISEASES, SPECIFICALLY SCLERODERMA

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Results...

• Nearly every school teaches predoctoral students about the treatment of patients with rheumatic diseases. (most of those include scleroderma)

• About half of the schools offer continuing education about the treatment of patients with rheumatic diseases.
What does your dentist want to know?
Scleroderma and oral health

- Xerostomia (dry mouth, Sjögren's syndrome).
- Pain and difficulty opening.
- Oral effects of medications.
- Psychological effects (depression, self image).
- Gastro-Esophageal Reflux (GERD)
Scleroderma Increases Risk of Decay

- Host Resistance
  - Diet
  - GERD
  - Self Cleaning
  - Xerostomia
  - Oral Hygiene
  - Depression
  - Professional care
Caries Management By Risk Assessment

Risk factors that apply to many scleroderma patients:

• Special health care needs
• 3 or more carious lesions (cavities) in last 3 years
• Teeth missing due to caries last 3 years
• Severe dry mouth
• Medications that reduce salivary flow
• Visible plaque
• Exposed root surfaces
• Lack of a dental home
Treatment of Xerostomia

- Symptomatic.
- Caphosol.
- Calcium/phosphate paste
- Artificial saliva.
  - Salivart
- Sugar free candies.
- Fluoride gel and rinse
- Medical
  - Pilocarpine (Salagen)
  - Cevimeline (Evoxac)
Caphosol

- 1 box contains 30 doses. 1 dose = 2 ampules mixed together.
Home Care Products

 Fluoride Products

 MI Paste Plus
The severity of salivary dysfunction is disproportionate to the amount of lymphocyte infiltration.

Most Sjögren’s syndrome patients have remaining acinar cells in their salivary glands.

Muscarinic receptors on these cells are still capable of responding to stimulation.

In sufficient dosages, muscarinic agonists can increase secretion of exocrine glands.

Why Can Muscarinic Agonists Be Used to Stimulate Saliva?
Contraindications:
- uncontrolled asthma
- hypersensitivity to the drug
- acute iritis
- narrow-angle (angle-closure) glaucoma
Cevimeline can potentially alter cardiac conduction, heart rate, and produce transient changes in hemodynamics.

Close medical supervision:
- history of cardiac disease
- controlled asthma
- chronic bronchitis
- chronic obstructive pulmonary disease
- beta adrenergic antagonists because of the possibility of conduction disturbances
- history of nephrolithiasis or cholelithiasis
Special Populations

• Safety and effectiveness in pediatric patients have not been established

• Special care should be exercised when cevimeline is taken by geriatric patients, considering the greater frequency of decreased hepatic, renal, or cardiac function
Information for Patients

• If a patient sweats excessively while taking cevimeline, dehydration may develop

• Caution should be advised while driving at night or performing hazardous activities in reduced lighting
GERD
GERD

- Work with MD and Patient
  - Medication
    - PPI, H2 antagonists, Antacids
  - Diet
    - Low acid, no caffeine, nothing for 2 hours before bed
  - Endoscopy to Rule out Barrett's esophagus and ulcerations.
Oral effects of Medications

- Xerostomia.
- Oral Lesions.
- Stomatitis.
- Candidiasis.
- Intraoral hemorrhage
- Dysgeusia – taste change.
- Gingival hyperplasia – swollen gums.
- Osteonecrosis (Bone death) of the Jaw.
Microstomia

- Adjust patient:
  - Physical therapy.
  - Commissurotomy.

- Adjust tools and technique:
  - Patience.
  - Shorten burs.
  - Floss with a floss aid.
  - Impressions with smaller or cut down trays.
Adaptive Toothbrushes
Power Toothbrushes
When flossing is a problem.
Fluoride Varnish

Cavity Shield

Great Tasting, Bubble Gum Flavor

Pre-measured wells assure consistent fluoride dosage with each application.

Tufts University
Shorten Burs
Smaller or cut down trays
Physical Therapy
Therabite and Orastretch

Require Rx, replacement parts, insurance.
Multiple tooth resorption syndrome
Diagnosis and treatment of resorption
Tell the dentist you have scleroderma and how it affects you.

List of medications.

Short appointments.

Schedule for the best time of day for you.

Physical therapy right before.

Gloves and blanket.
Wrap up

The dentist can help make your appointment more comfortable:

- Mouth prop.
- Rubber dam.
- Patience of both parties.
- Short appointments and/or breaks.
- Cut the air conditioning.
See your dentist regularly (every 1-4 months).

- Prevents the need for long appointments.
- Helps maintain good self image and health.
Questions?

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