Dentistry & Scleroderma

- Ronald S. Brown, DDS, MS
- Dipl. American Board of Oral Medicine
- Professor of Oral Diagnosis, Howard University College of Dentistry
- Clinical Associate Professor of Otolaryngology Georgetwon University Medical Center
- Volunteer Clinical Associate Research Associate, NHLBI/NIH Hematology Branch
Disclosure Statement

• I have no disclosures to make other than I have a private practice as an Oral Medicine Specialist.
Scleroderma (CREST syndrome – A Collagen-Vascular Disease)

- **Scleroderma** is a chronic disease characterized by excessive deposits of collagen in the skin or other organs. The localized type of the disease, while disabling, tends not to be fatal. **Diffuse scleroderma** or **systemic sclerosis**, the generalized type of the disease, can be fatal as a result of heart, kidney, lung, or intestinal damage.
- Scleroderma affects the skin, and in more serious cases it can affect the blood vessels and internal organs. The most evident symptom is the hardening of the skin and associated scarring. Typically, the skin appears reddish or scaly. Blood vessels may also be more visible. Where large areas are affected, fat and muscle wastage will weaken limbs and affect appearance.
- The seriousness of the disease varies hugely between cases. The two most important factors to consider are the level of internal involvement (beneath the skin) and the total area covered by the disease. For example, there have been cases where the patient has no more than one or two lesions, perhaps covering a few inches. Less serious cases tend not to involve the internal bodily functions.
- There is discoloration of the hands and feet in response to cold. Most patients (over 80%) have Raynaud’s phenomenon, a vascular symptom that can affect the fingers and toes.
- Systemic scleroderma and Raynaud's can cause painful ulcers on the fingers or toes which are known as digital ulcers.
- **Calcinoses** is also common in systemic scleroderma, and is often seen near the elbows, knees or other joints.
Scleroderma Dental Issues

- Inability to open mouth
- Oral Dryness – Dental Caries, Oral Candidiasis
- Radiographic evidence of Progressive Scleroderma – thickened lamina dura
- Shutdown of microvascular circulation and contribution to periodontal disease
- Decreased healing
- Few Dentists are familiar with the treatment of dental patients with Scleroderma – Old Concepts are still in the textbooks – Oral Medicine Clinicians AAOM.COM, Public Health Dentists
Internet Information

• Google Scleroderma and Dentistry
• What your dentist wants to know about scleroderma.
• www.scleroderma.org/site/DocServer/Leader_Dentist_Scleroderma.pdf?docID=5581
• David M. Leader, DMD, MPH, Tufts University School of Dental Medicine
AAOM Common Oral Conditions Clinician’s Guide  
– Information on Xerostomia, Candidiasis, etc

American Academy of Oral Medicine  
2150 N 107th St, Suite 205 • Seattle, WA 98133 | 206-209-5279  
info@aaom.com
Raynaud’s sign

White or red hands, cold hands, sores at the end of the fingers

Seen in Scleroderma
Decreased mouth opening

- Tongue blade therapy – Ah sticks
- Mouth exercises
- Flossing aids and tooth brush design
- Previous intervention was to extract all of the teeth
Tongue Blade Therapy to increase mouth opening
Oral Dryness

- Increase water intake, ice chips
- Dry mouth OTC products
  - Saliva gel/spray, mouth rinses, sugarless candy/gum
- Pilocarpine and Cevimeline (muscarinic agonists)
- Oral Candida Infection
- Fluoride therapy
Dry mouth and Dental Caries/Decay
Dry mouth, steroid therapy, and secondary Candida Infection
Dental Radiography for Scleroderma & CREST Syndrome

• Thickening of the lamina dura of teeth in dental xrays is typically diagnostic of progressive scleroderma. This finding is a diagnostic of a poor prognosis for Scleroderma.

• CREST syndrome – Calcinosis, Raynaud’s phenomenon, Esophageal dysmotility, Sclerodactyly, and Telangiectasia
Thickened Lamina dura
Thickened Lamina dura
It's not as bad as it looks—he was at a costume party dressed as a mummy & ate some bad shrimp.