Wound Care in Scleroderma:

Myths and Facts

EXPLORING HOW THE (TRIED AND TRUE!) PRINCIPLES OF WOUND HEALING APPLY TO WOUNDS AND PEOPLE WITH SCLERODERMA

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Objectives

At the end of this session the learner will be able to:

- Identify key components of caring for people with scleroderma wounds
- List strategies for patient centered, holistic wound care
- Review resources for caring for patients with wounds

Myth or Fact?

- The Principles of Wound Healing are integral in treating people with scleroderma wounds.

MYTH FACT

Principles of Wound Healing

- Identify and manage underlying comorbid conditions
- Support and provide holistic patient centered care
- Involve the interdisciplinary team
- Optimize the wound bed
- Evaluate outcomes

Myth or Fact?

- Underlying comorbid conditions influence skin health and wound development.

MYTH FACT

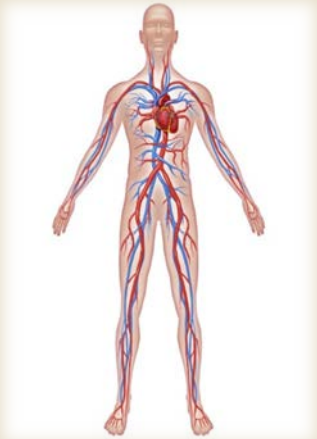
Wound Etiology

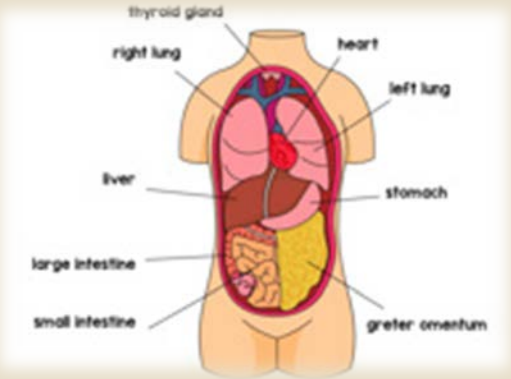
- Tissue fibrosis, collagen deposition, vasospasm and vaso-occlusion
  - Decreased elasticity
  - Tight skin over bony prominences – prone to injury
- Circulation
  - Raynaud's (96% of all patients)
  - Decreased oxygenation = digital ischemia
- Calcinosis (22% of all patients)
  - Chronic tissue inflammation, trauma = calcium deposits
  - Hands, feet, forearms, elbows, knees, shins

(Williams et al. 2018)

Manage underlying comorbid conditions

Circulation





Organ Involvement

Inflammation

Labs

Holistic patient centered care

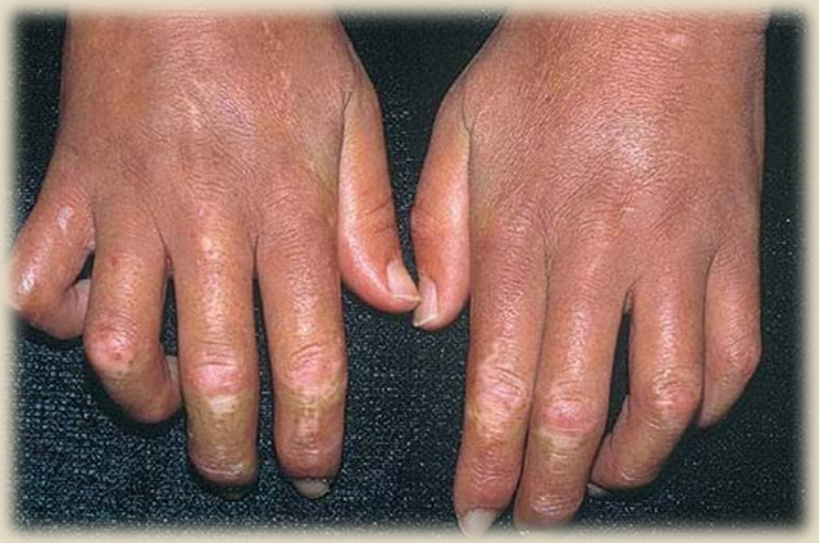
Skin Care

Nutrition/Hydration

Lifestyle Choices

Pain and Stress

Skin Care



- Avoid cold and stress
- Vasodilator medication
- Daily creams/emollients
- Protect – gloves, fingertip protectors
- Wax baths for intact skin
- Hand exercises

Myth or Fact?

- Patients with scleroderma wounds should only see one health care practitioner for continuity of care.

MYTH FACT

Team Approach

Patient and Family

Skin and Wound RN

Physician

Orthotist

Medical Specialists

PT

Podiatrist

OT

Counsellor

Social Worker

Myth or Fact?

- Antibiotic ointments or antimicrobials are required to close all wounds.

MYTH FACT

Optimize the Wound Bed

Is the wound healable?

- Consider:
  - Blood supply
  - Presence of necrotic tissue and ability to debride
  - Location
  - History of previous wounds
  - Lifestyle factors
  - Age and overall health
  - Ability to participate in the tx plan

Assessment Tools

- Use validated assessment tools
- Provides consistency and accuracy
- Schedule reassessments
- Measures outcomes
- Wound care - BWAT – Bates Jensen Wound Assessment Tool
- Pain assessments

Common Dressing Treatments

- Advanced dressings
- Atraumatic
- Cut to fit
- More cost effective

Specialty Dressings

- Shaped to fit digits, elbows, heels
- More costly

Topical Antimicrobials

- Add moisture while providing antimicrobial coverage
- Requires a moisture retentive topper
- Use judiciously to treat S&S of local or spreading infection
- Reassess frequently
- Can be used with systemic abx

Topical Antimicrobials

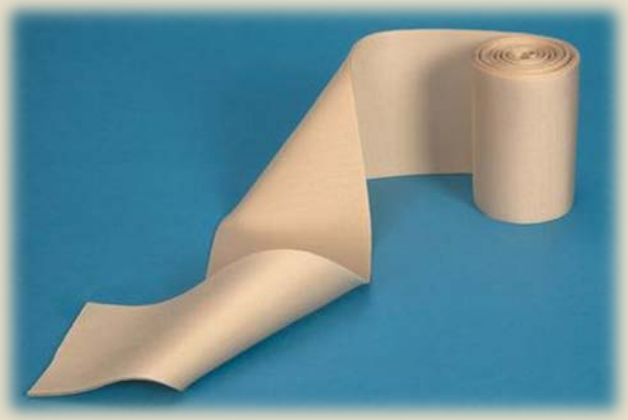
- Silver and iodine products provide sustained release of antimicrobial coverage
- Monitor and reassess frequently
- Requires a topper dressing
- Not all silvers and iodine products are equal

Topical Antimicrobials

- 10% povidone iodine (betadine)
- Provides up to 24 hours antimicrobial coverage in dry wounds
- Used to dry and stabilize eschar and gangrene
- Apply daily or twice daily
- Cover with breathable dressings only – gauze, stretch gauze, fabric tape
- Cost effective
- Prevents infection

Dermasavers

- www.dermasaver.com
- Protective sleeves or fabric
- Washable
- Shear and friction resistant
- Prevent trauma
- Affordable

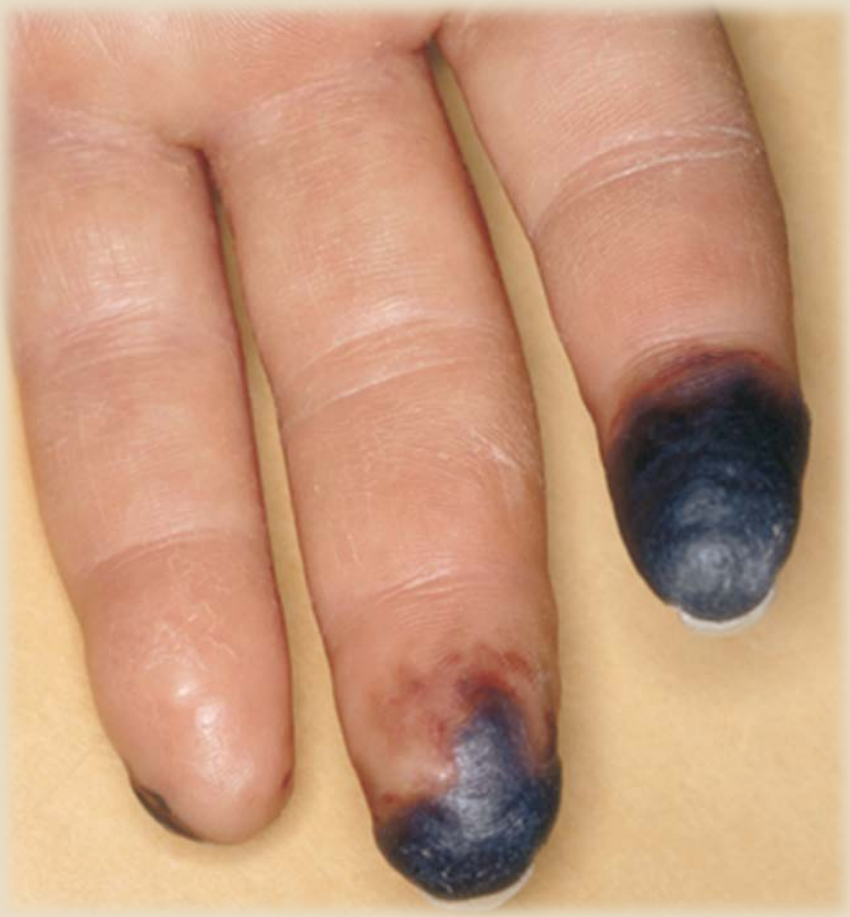


Optimize the Wound Bed

- Topical vit E cream – decreased pain and healing time
- Dressings to promote moist wound healing – foams, composites, gels, non-contact layers
- Treat underlying inflammation
- Keep hands warm!
- Pain management

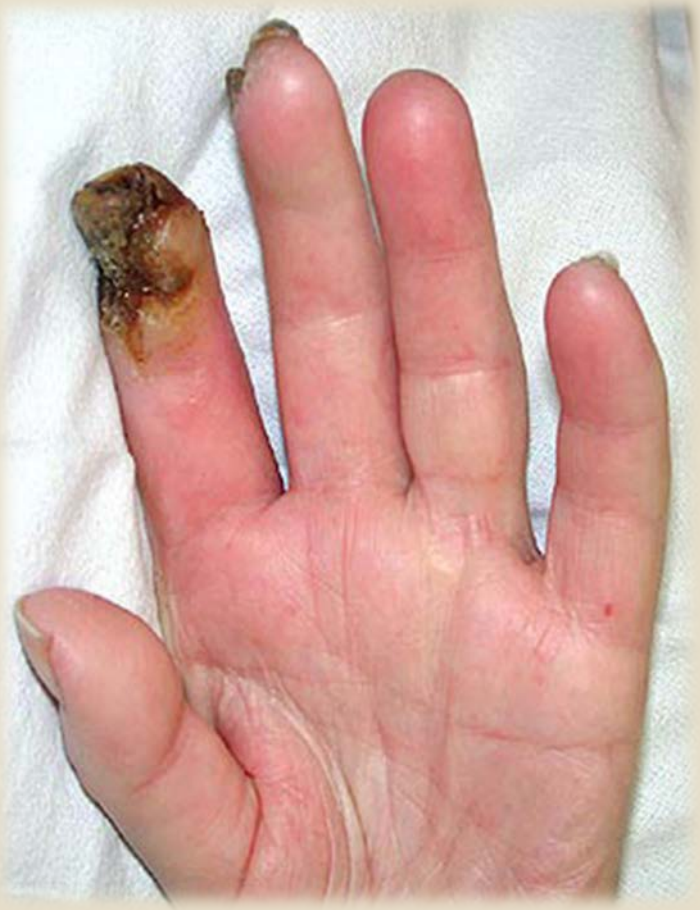
Fiori et al. 2009

Optimize the Wound Bed



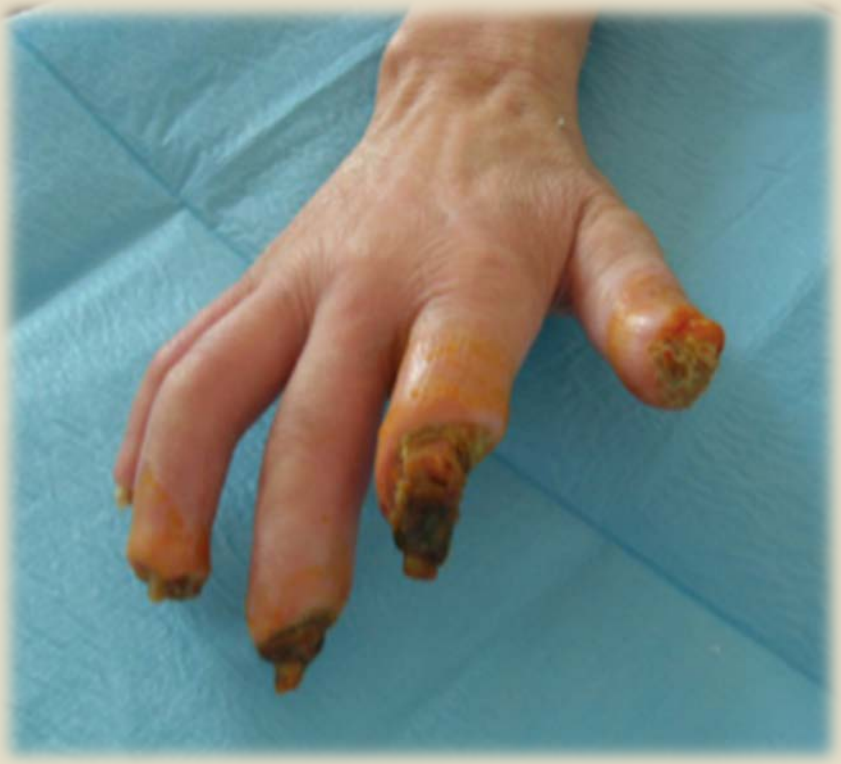
- Determine healability
- Prevent infection
- Keep dry and clean
- Wet or dry management determined by healability
- Pharmacologic management
- Prevent trauma
- Keep warm
- Pain management

Optimize the Wound Bed



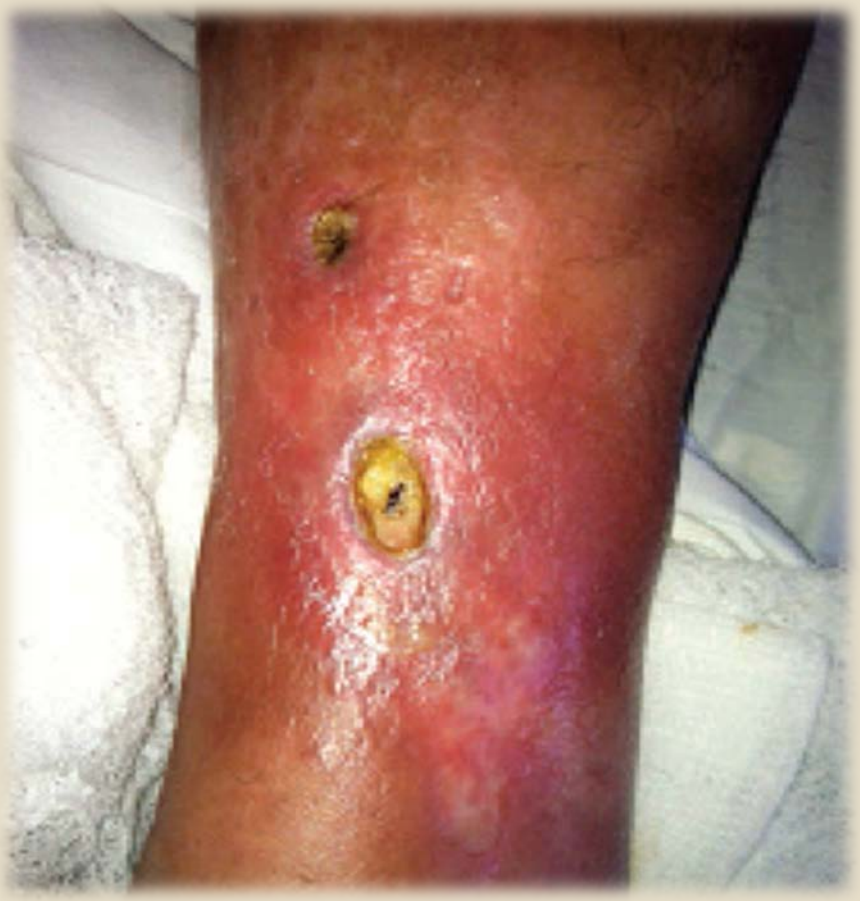
- Remove calcium deposits
- Debride necrotic tissue
- Address bacterial burden with topical antimicrobials
- Use systemic abx as needed
- Moist wound healing
- Circulation improves as wound heals
- Prevent trauma
- Keep warm
- Pain management

Optimize the Wound Bed



- Dry and stabilize gangrene
- Apply betadine 1-2x daily
- Wounds must be kept dry
- Address inflammation and underlying infection
- Protect from trauma
- Keep warm
- Pain management
- Consults to optimize ADLs and mental health

Optimize the Wound Bed



- Apply principles of lower limb management – assess circulation (TBI), exudate and edema management, compression therapy
- Remove calcium deposits
- Moist wound healing
- Pain management

Myth or Fact?

- Ischemic wounds do not reoccur once healed.

MYTH FACT

Evaluation

- Patients require ongoing wound assessments and medical, pharmacologic and lifestyle management

Wound Care Resources

- www.woundscanada.ca
- www.woundinfection-institute.com
- www.clwk.ca
- www.rnao.ca

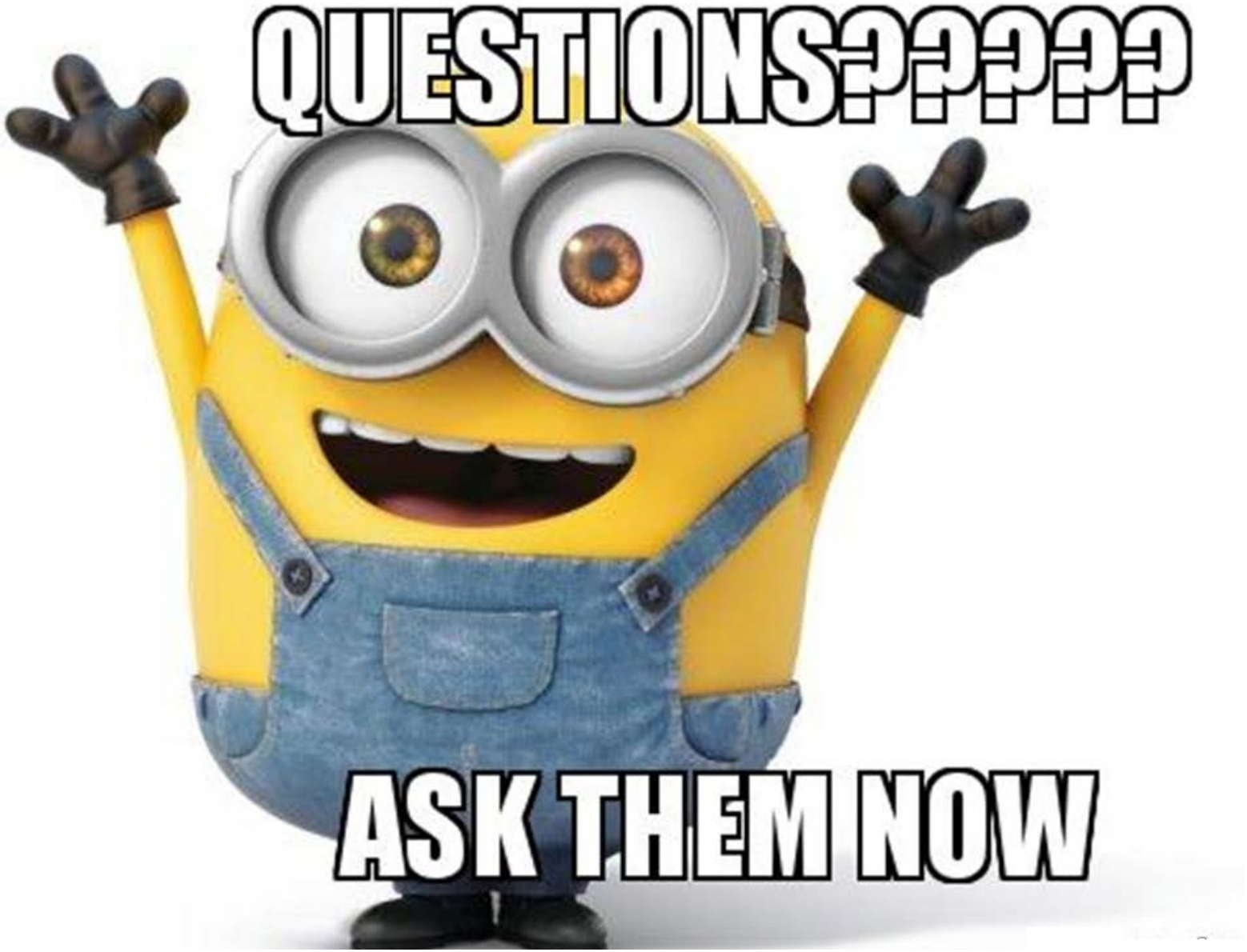
Conclusion

- Patients with scleroderma and wounds require a holistic approach to wound care
- Involve the interdisciplinary team
- Principles of Wound Healing guide the wound care practice
- Skin care regimens can improve skin quality and prevent wounds

Remember to:

Not just the hole in the person!

Treat the whole person…


QUESTIONS?????
ASK THEM NOW


Thank
you

References

1. Abraham S, and Steen V. Optimal management of digital ulcers in systemic sclerosis. Therapeutics and Clinical Risk Management 2015:11 939-947
2. Abouwda Y et al. Treatment of digital ulcers in systemic sclerosis: Case series study of thirteen patients and discussion on outcome. Rev Assoc Med Bras 2017; 63(5): 422-426
3. Brown S. Management of digital ulcers related to systemic sclerosis. Nursing Standard. April 14. Vol 24 No 32. 2010
4. Chapman P. Systemic Sclerosis: Scleroderma. Wound Care Canada. Vol. 4 No 3. 2006
5. Denton C and Khanna D. Systemic sclerosis. The Lancet. Vol 390. October 7, 2017
6. Fiori G et al. Vitamin E gel reduces time of healing of digital ulcers in systemic sclerosis. Clinical and Experimental Rheumatology 2009: 27 (Suppl.54):S51-S54
7. Fujimoto M. et al. The wound/burn guidelines – 4: Guidelines for the management of skin ulcers associated with connective tissue disease/vasculitis. The Journal of Dermatology 2016; 43:729-757

References

7. Gabrielli, A, Enrico VA and Krieg T. Scleroderma. The New England Journal of Medicine. May 7, 2009
8. Guiggioli D et al. Scleroderma skin ulcers definition, classification and treatment strategies our experience and review of the literature. Autoimmunity Reviews. 17 (2018) 155-164
9. Herrick A. Recent advances in the pathogenesis and management of Raynaud's phenomenon and digital ulcers. Rheumatology. Vol 28 No 6. Nov. 2016
10. Moran ME. Scleroderma and evidence based non-pharmaceutical treatment modalities for digital ulcers: a systematic review. Journal of Wound Care. Vol 23 No 10. 2014
11. Netsch D. Calcinosis Cutis. JWOCN. Jan/Feb 2018
12. Orsted H et al. Basic Principles of Wound Healing. Wound Care Canada Vol 9 No 4
13. Orsted H et al. Foundations of Best Practice for Skin and Wound Management. Best Practice Recommendations for the Prevention and Management of Wounds. Wounds Canada 2017
14. Williams A, Carl H and Lifchez S. The Scleroderma Hand: Manifestations of Disease and Approach to Management. J Hand Surg Am. Vol 43. June 2018