



Approved Provider

CE Activity provided by PCI Journal

## SCLERODERMA

COA# PCIA0909

### INSTRUCTIONS

1. Read the article.
2. Take the test, record your answers in the test answer section (Section B) on CE Registration Form.
3. Complete the CE Registration information (Section A) and Course Evaluation (Section C).
4. Mail completed CE Registration Form and fee to: PCI Journal, 484 Spring Avenue, Ridgewood, NJ 07450-4624.
5. This CE activity is approved through September 1, 2012.

### PROVIDER ACCREDITATION

*Paramedical Consultants, Inc.*, publishers of the PCI Journal and WWU have been approved by the NCEA COA. This educational activity has been approved for 1.0 CE – COA#PCIA0909

### GENERAL PURPOSE STATEMENT

To provide the skin care professional with a review of *Scleroderma*.

### LEARNING OBJECTIVES

After reading this article and taking this test, the skin care professional will be able to:

1. Describe the pathogenesis of the disease and its epidemiology.
2. Understand the treatment options and effects of the disease.

## **SCLERODERMA**

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*Scleroderma* or systemic sclerosis, is a chronic connective tissue disease generally classified as one of the autoimmune rheumatic diseases. The word "scleroderma" comes from two Greek words: "sclero" meaning hard, and "derma" meaning skin. The two broad categories are "localized scleroderma" which indicates distinct skin lesions, and "systemic sclerosis" (scleroderma) which indicates similar skin symptoms and the potential for internal organ involvement. The disease has been called "progressive systemic sclerosis," but the use of that term has been discouraged since it has been found that scleroderma is not necessarily progressive.

Other diseases affecting the skin that may be confused with scleroderma include scleredema, scleromyxedema, eosinophilic fasciitis, and nephrogenic systemic fibrosis. The disease may take several forms from causing severe fatigue and tight, itchy skin on face, arms, hands and trunk—to the hardening of the skin as being one of the most visible manifestations of the disease. There is also much variability among patients. Scleroderma is a disease whose symptoms may be visible, as is the case when the skin is affected, or the symptoms may be invisible, as when internal organs are affected.

### **Pathogenesis**

Scleroderma is a connective tissue disease whose hallmark is excessive collagen that is deposited around capillaries found in the skin, lungs, kidney and esophagus. The etiology is unknown, but its pathogenesis involves an activated immune system, abnormal vascular endothelium and an exaggerated production of fibroblasts that results in abnormal collagen buildup. Collagen is the basic component of connective tissues found in skin, tendons, joints, ligaments, and around major organs. An overproduction of collagen interrupts vital systems by replacing functioning cells with

"scars." Skin hardening is also accompanied by pain and can become disfiguring and debilitating. Telangiectasias, clawed fingers, joint pain and itching occur from the entrapment of superficial pain nerves. Skin breakdown can occur from excessive dryness.

### **Epidemiology**

Scleroderma is not contagious, it is not infectious, it is not cancerous or malignant.

Scleroderma is a relatively uncommon problem, affecting only 200 to 300 people per million in the United States. Some 12 to 20 new cases per million are diagnosed annually. While scleroderma affects both adults and children, it is most common among adult women, mean age of 40-50 years.

### **Diagnosis and Treatment**

The symptoms of scleroderma vary greatly from individual to individual, and the effects of scleroderma can range from very mild to life-threatening. The seriousness will depend on what parts of the body are affected, and the extent to which they are affected. A mild case can become more serious if not properly treated. Prompt and proper diagnosis and treatment by qualified physicians may minimize the symptoms of scleroderma and lessen the chance for irreversible damage.

Treatment, when necessary is focused on the rapid reduction of inflammation, prevention, and treatment of fibrosis, and organ-specific therapy. Immunosuppressive medications such as methotrexate and cyclophosphamide are used to reduce the inflammatory process. Corticosteroids are sometimes also used for joint or tendon symptoms.

Only time and immunosuppressives have been found to actually soften the skin, not specific moisturizers or massage, although they can feel good and may be preventative.

### **References:**

1. Scleroderma. *Advances for Nurses* (Learning Scope #308) Furst, Elaine A.
2. Scleroderma Foundation. [www.scleroderma.org](http://www.scleroderma.org)

**CE TEST Scleroderma****COA# PCIA0909**

1. Scleroderma is a chronic:
  - a. immune deficiency disease
  - b. autoimmune disease
  - c. connective tissue disease
  - d. inflammatory disease
  
2. A common hallmark is:
  - a. excessive telangiectasias
  - b. dermatophytes
  - c. increased hardening
  - d. excessive collagen
  
3. Immunosuppressive medications are used to:
  - a. reduce the inflammatory process
  - b. hydrate the skin
  - c. increase movement
  - d. reduce bacterial count
  
4. Diseases often confused with scleroderma are:
  - a. scleredema
  - b. eosinophilic fasciitis
  - c. scleromyxedema
  - d. all of the above
  
5. Collagen is the basic component of?
  - a. follicular orifice
  - b. connective tissues
  - c. the heart
  - d. the arteries
  
6. "Scleroderma" is derived from greek and means?
  - a. capillaries
  - b. soft
  - c. skin
  - d. hard
  
7. The most visible manifestation of the disease is:
  - a. fatigue
  - b. hardening of the skin
  - c. fibrosis
  - d. organ damage
  
8. Affecting both adults and children, scleroderma is most common among:
  - a. women
  - b. boys
  - c. men
  - d. girls
  
9. Methotrexate is used for:
  - a. joint symptoms
  - b. fibrosis
  - c. organ-specific therapy
  - d. reducing inflammation
  
10. Corticosteroids are used for:
  - a. capillary symptoms
  - b. inflammation
  - c. joint and tendon symptoms
  - d. edema
  
11. Skin softening will occur with:
  - a. series of facials
  - b. time and immunosuppressives
  - c. no treatment
  - d. massage therapy
  
12. Seriousness of the disease will depend on:
  - a. body parts affected
  - b. medication
  - c. genetics and age
  - d. blood type
  
13. Tiny blood vessels are called:
  - a. arteries
  - b. telangiectasias
  - c. veins
  - d. sclerosis
  
14. Lungs, kidneys and esophagus are affected by:
  - a. excessive collagen
  - b. vascular endothelium
  - c. excessive corticosteroids
  - d. antihistamines
  
15. Scleroderma is *not*:
  - a. infectious
  - b. cancerous
  - c. contagious
  - d. all of the above.
  
16. Systemic scleroderma refers to:
  - a. organ involvement
  - b. skin and organ involvement
  - c. the skin only
  - d. skin and capillary involvement
  
17. Fibroblasts are located in the:
  - a. epidermis
  - b. stratum luidum
  - c. dermis
  - d. stratum germinativum
  
18. The key to scleroderma treatment is:
  - a. correct medication usage
  - b. prompt and proper diagnosis
  - c. moisturizing, and medication
  - d. moisturizers and massage

# CE REGISTRATION FORM

Scleroderma COA# PCIA0909

## Section A

**PRINT CLEARLY** (Illegible forms will not be processed)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_ \*Delivery Method used to send CE Certificate

Are you certified? \_\_\_Yes \_\_\_No

NCEA Certification# \_\_\_\_\_

Other Certification \_\_\_\_\_

Type of License:

Esthetician \_\_\_ Cosmetologist \_\_\_ Medical Professional \_\_\_ Other \_\_\_

License # \_\_\_\_\_ State of Issue \_\_\_\_\_

## Section B

Test Answers:

Darken one for your answer to each question

	A	B	C	D		A	B	C	D
1.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	10.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	11.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	12.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	14.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	15.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	16.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	17.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	18.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Section C

**Course Evaluation:**

1. Did this CE activity's learning objective relate to its general purpose? \_\_\_Yes \_\_\_No
2. Was the elearning format an effective way to present this material? \_\_\_Yes \_\_\_No
3. Was the content relevant to your skin care practice? \_\_\_Yes \_\_\_No
4. How long in minutes did it take you to read the article \_\_\_\_\_, study the material \_\_\_\_\_, and take the test \_\_\_\_\_?
5. Suggestions for future topics \_\_\_\_\_  
\_\_\_\_\_

## Section D

**Payments and Discounts:**

The registration fee for this test is \$24.95. (Check or money order payable to PCI Journal)

Mail to: PCI Journal, 484 Spring Avenue, Ridgewood, NJ 07450-4624

*\*We offer special discounts for as few as six tests and institutional bulk discounts for multiple tests. Call (201) 670-4100 Ext 5, for more information.*