The University of Utah Department of Dermatology is dedicated to improving the health of all individuals suffering from skin disease. As such, it is invested in the educational needs of both dermatologists and non-dermatologists. For the past three years our department has conducted an annual CME course dedicated specifically to the dermatologic educational needs of primary healthcare providers and trainees. This newsletter is intended to serve as an extension of this ongoing educational effort.

The main focus of this newsletter is to provide educational content to non-dermatologists relating to the diagnosis and management of common skin disorders. This vehicle will also be used to better familiarize primary healthcare providers with the many support services that our department and faculty can offer to assist them in the care of their patients with skin problems.

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When faced with red skin on lower legs, many clinicians have difficulty thinking of anything other than cellulitis. This bias is in part due to the fact that if cellulitis is not recognized and treated, it can progress to potentially life- or limb-threatening complications such as sepsis or necrotizing fasciitis. However, a number of other relatively common dermatoses can be confused with cellulitis. Among those include:

**Stasis dermatitis/eczema.** This is one of the most common cellulitis look-alike. Stasis dermatitis typically produces surface eczematous changes including erythematous papules, vesicles, weeping, crusting, fissures, and scaling. These changes are associated with severe pruritus. In contradistinction, the skin...
changes of bacterial cellulitis include erythema, edema, pain, and warmth often associated with cutaneous hemorrhage. Stasis dermatitis is typically bilateral but not necessarily symmetrical. Cellulitis is typically unilateral and in general more sharply marginated than stasis dermatitis. However, it should be kept in mind that cellulitis can develop as a complication of stasis dermatitis. This occurs when pathogenic bacteria enter the skin through excoriations and fissures that result from stasis dermatitis.

Contact dermatitis. Irritant or allergic contact dermatitis can result when irritating or sensitizing chemicals are applied to the skin on the lower limbs. The resulting skin surface changes are much the same as described for stasis dermatitis/eczema. Skin changes can be seen to develop within hours of exposure to the offending chemical with primary irritant contact dermatitis. The time interval for allergic contact dermatitis is typically 2 days. Because of the severe itching associated with stasis dermatitis/eczema, patients commonly use one or more topical nonprescription preparations to treat the rash and itch. Such products often contain topical sensitizers such as neomycin or diphenhydramine that can produce an allergic contact dermatitis on top of the stasis dermatitis/eczema. Your friendly dermatologist should be able to help you out in this setting.

Lipodermatosclerosis. Another lower leg erythematous skin change that can be confused with cellulitis is lipodermatosclerosis. This is an indolent chronic inflammatory disorder of the subcutaneous tissue related to venous insufficiency that occurs predominately in women. Typically, both lower extremities are involved. The acute phase of lipodermatosclerosis produces red or livid, indurated, warm, tender/painful plaques on the lower calf. The chronic phase of lipodermatosclerosis is characterized by hyperpigmented indurated and bound-down skin that constricts the ankle region giving the leg an appearance of an inverted champagne bottle.

Chronic lipodermatosclerosis can be confused with scleroderma. Flares of acute lipodermatosclerosis can occur on the background of chronic lipodermatosclerosis.

Asteotic eczema. Excessive dryness of the skin of the lower legs is a common manifestation of aging. In its severest manifestation, pruritic reticulated scaling skin changes can appear bilaterally on the lower legs resembling the cracked pavement of a road (eczema craquelé). At times this can be severe enough to be confused with cellulitis. A superimposed contact dermatitis from the use of over-the-counter antipruritic topicals can create even more confusion in this regard.

Dependent rubor. Erythema of the lower extremities can be seen in association with arterial insufficiency. This erythema quickly disappears with leg elevation. The erythema and edema of cellulitis does not disappear with elevation of the affected leg.

So what was the cause of the red skin on the lower legs of the patient show at the beginning of this column on Page 1? First, notice the column-like configuration of this patient’s massive legs. These morphological features are typical of an unusual condition referred to as “lipedema” (spelled “lipedema” in other parts of the world). Lipedema is characterized by abnormal fat deposition resulting in large legs that are greatly out of proportion.
Online Management Resources (continued from page 1)

Provider Education

**LearnDerm (Logical Images)** (open access)  
http://www.logicalimages.com/educationalTools/learnDerm.htm  
An open-access modular tutorial for learning or reviewing the basic elements of dermatologic diagnosis (ie, skin examination, identifying primary skin lesions, anatomical distribution, etc.).

**Medical Student Core Curriculum (American Academy of Dermatology)** (open access)  
(http://www.aad.org/education-and-quality-care/medical-student-core-curriculum/)  
A comprehensive dermatology curriculum for medical students and mid-level provider students.

Decision Support

**VisualDx (Logical Images)** (subscription required)  
http://www.visualdx.com/  
An interactive web-based, clinical image-driven decision support system to enhance diagnostic accuracy, aid therapeutic decisions, and improve patient safety. A functional combination of a dermatology textbook and color clinical image database. Includes a large library of high-resolution, expertly-photographed clinical images that are tightly integrated into text information.

**UpToDate** (subscription required)  
http://www.uptodate.com/index  
An evidence-based, physician-authored clinical knowledge database

**Emedicine (Medscape)** (free account required to login)  
http://emedicine.medscape.com/dermatology  
An open-access reliable multi-authored dermatology textbook. However, the accompanying clinical images are spare and low-resolution. Clinical images are not integrally integrated into the text information.

Patient Education/Handouts

**DermNet NZ** (open access)  
http://www.dermnetnz.org/  
Succinct summaries of accurate information about skin disorders from the New Zealand Dermatological Society that are written in language that patients can understand. Summaries can be printed out and used as patient handouts. Incorporates the “Google Translate” feature as a webpage menu item. This allows clinical summaries to be instantly translated into multiple languages as viewed on the computer screen. However, for hard copies, one’s printer must be capable of printing the chosen foreign language text letters and symbols.

**Medline Plus** (open access)  
http://www.nlm.nih.gov/medlineplus/  
Authoritative open-access information source for patients from the National Library of Medicine/National Institutes of Health.

*Listed in decreasing order of clinical utility as per Editor’s personal assessment. Editor has no conflicts of interest relating to subscription-based products discussed.*
to overall body size (http://www.dermnetnz.org/dermal-infiltrative/lipoedema.html). As the legs are often painful in this disorder, it is alternatively referred to as the "painful fat syndrome."

Lipedema is nearly always seen in women. It develops soon after puberty and gradually progresses. The swelling affects the hips, thighs and the lower legs symmetrically, but the feet are rarely affected. The fat often creates a ring of fatty tissue overlapping the top of the feet.

Lipedema can be confused with lymphedema (syn. lymphoedema). It has been observed that lymphedema may develop within longstanding lipedematous changes on the legs. We feel that the red plaques on our patient’s lower pretibial surfaces represent early lymphedema developing on a background of lipedema.

References: