

Answer: Erysipelas

Etiologic agent/Epid:

Most often Group A beta-hemolytic strep; rarely, other strep species
Usually adults, with slight female preponderance

Why:

Although eMedicine cites damage to skin from small abrasions and other portals of entry, in my experience they are not evident and make no difference in dx or treatment since the rash has such a distinguishing appearance. One author (Bernard), in a recent review of common bacterial skin infections, felt that the main risk factors for erysipelas are "toe-web intertrigo and lymphedema." EMedicine also lists the following predisposing factors, after breaks in the skin from any cause:

Lymphatic obstruction or edema
Saphenous vein grafting in lower extremities
Status postradical mastectomy
Immunocompromised patients, including patients who are diabetic or alcoholic
Arteriovenous insufficiency
Paretic limbs

The eMedicine dermatology site on erysipelas also cites the following as predisposing factors, in addition to immunocompromised hosts:

diabetes
alcohol abuse
HIV infection
nephrotic syndrome
vagrant lifestyle.

Clinical:

Eruption: bright red, very sharply demarcated (the sine qua non for me), hot and slightly tender; although eMedicine states that it is more common on lower extremities than face, I seem to have seen it more often (or maybe I missed it on LE's) on face.

Systemic: as with any strep infection: often fever and myalgias. Rarely can cause devastating systemic consequences, like TSS (see Bomke, below)

NB: Scarlet fever is also caused by GABHS but THE ERUPTION IS CAUSED BY A TOXIN elaborated by GABHS; ERYSIPELAS IS AN INFECTION OF THE SKIN. (See references below for scarlet fever, including images

[<http://www.nlm.nih.gov/medlineplus/ency/imagepages/19082.htm>])

Puerperal fever, a disease of women who have recently delivered, was a disease clarified by the great Ignaz Semmelweis, and is also caused by GABHS. As one can easily understand, the roles of strep in these various diseases was not easily intuited by

even the sharpest minds of the 19th C. (see Hallett, below)

Treatment:

Any agent effective against GAHS. One should use least broad spectrum agent possible, e.g., Pen G, Pen V K, et cet.

Erythromycin is acceptable alternative for pen allergic folk

NOTE: we have made GREAT strides in treatment since this October 1945 National Geographic photograph was made!

(<http://ngm.nationalgeographic.com/flashback/2008?image=1>)

References:

eMedicine: <http://www.emedicine.com/emerg/topic172.htm>

Bernard P. Management of common bacterial infections of the skin.
Curr Opin Infect Dis. 2008 Apr;21(2):122-8.

Hallett C. The attempt to understand puerperal fever in the eighteenth and early nineteenth centuries: the influence of inflammation theory.
Med Hist. 2005 Jan;49(1):1-28.

Bomke AK, Vagts DA, Podbielski A.
[Toxic-shock-like-syndrome caused by beta-hemolysing group G streptococci in a multimorbid patient with erysipelas]
Dtsch Med Wochenschr. 2006 Feb 10;131(6):263-6. German.

scarlet fever:

<http://www.nlm.nih.gov/medlineplus/ency/imagepages/19082.htm>

<http://www.emedicine.com/emerg/TOPIC518.HTM>

strep infections in general:

<HTTP://www.eMedicine.com/med/topic2184.htm>