CONDITIONS THAT SIMULATE LOWER LIMB CELLULITIS

David Young
Dermatologist
DOCTOR SMITH
PODIATRIST
LEFT FOOT
ONLY

...NOW THAT'S A SPECIALIST!

© 1997 CREATORS SYNDICATE, INC.
‘CLINICAL EXPERIENCE’

The ability to keep on making the same mistakes with increasing confidence.
diagnosis of cellulitis often erroneous.

In a clinic staffed by dermatologists to assess patients with a presumptive diagnosis of cellulitis – 210/635 (33%) had a different disease instead

- 28% had a underlying predisposing skin condition that independently warranted therapy
MOST COMMON CONDITIONS MISTAKEN FOR CELLULITIS WERE:

- ECZEMA/DERMATITIS
- LYMPHOEDEMA
- LIPODERMATOSCLEROSIS
Unlike cellulitis these other conditions (except necrotizing soft tissue infections) do not cause:
- fever
- lymphangitis
- inguinal lymph node inflammation

and elevation of the leg tends to diminish or eliminate the erythema.
CELLULITIS OF THE LOWER LIMB

- Superficial spreading skin infection without an underlying collection of pus
- Erysipelas
ERYSIPELAS – three definitions:

- affects the superficial dermis only
- Refers only to facial cellulitis
- Synonym for cellulitis in any area.
CELLULITIS OF THE LOWER LIMB

- $M = F$
- More common with advancing age
- One attack predisposes to future episodes with an annual recurrence rate of about 8 to 20%
CELLULITIS OF THE LOWER LIMB

- Organisms enter through defects in cutaneous surface
- Particularly in the presence of oedema, venous insufficiency, obesity, trauma, ulceration or dermatologic disorders
- Reservoir for infecting organisms often interdigital toe spaces, esp when maceration, scaling & fissuring present
CELLULITIS OF THE LOWER LIMB

- WBC<, ESR, & CRP commonly elevated
- Normal values do not exclude diagnosis
CELLULITIS OF THE LOWER LIMB

- Streptococci in about 75% to 90%
- Staph. aureus in 10%
CELLULITIS OF THE LOWER LIMB

- Unusual organisms causing in
  - immunocompromised
  - chr liver dis
  - animal bites
  - immersion in salt or fresh water
  - penetrating trauma

- Include gram-negative bacilli, gram-positive bacteria, & fungi
NECROTISING SOFT TISSUE INFECTIONS

- Various names including necrotising fasciitis

- May involve any layer – skin, subcut, superf or deep fascia, and muscle
Arise from damage to the area by
- surgical procedures
- injection of illicit drugs
- blunt or penetrating trauma
- burns
- abrasions
Necrotising Soft Tissue Infections

- May be mono- or polymicrobial

- Often underlying disorders such as
  - diabetes mellitus
  - illicit drug use
  - periph vasc dis
  - alcoholism
  - chr immunosppression

- However many previously healthy
Characteristics suggesting a necrotising infection

- severe disproportionate pain
- oedema/tenderness extending beyond erythematous border
- vesicles or bullae, sometimes haemorrhagic
- bleeding into skin often with central metal-gray area indicating severe ischaemia
NECROTISING SOFT TISSUE INFECTIONS

- cutaneous gangrene
- crepitus
- cutaneous anaesthesia
- fluctuance
- woody induration
- rapid expansion of the margins despite therapy
- drainage of thin purulent liquid
Lymphangitis and lymphadenitis rarely present

Patients seriously ill – high fevers
- chills
- hypotension
- tachycardia
- altered consciousnes
Fiery red to dusky erythema present when leg dependent but absent when elevated

Most cases probably related to ischaemia

Asymptomatic
SIGN OF CHRONIC VENOUS INSUFFICIENCY

- Varicose veins and pitting oedema
- Hyperpigmentation frequent
- "atrophie blanche"
- Venous ulcers
VENOUS ECZEMA (STASIS DERMATITIS)

- Papules, vesicles, weeping, crusting, & fissuring

- Scaling and pruritus

- Not usually as red and hot as cellulitis

- Frequently bilateral
Frequently a flare results in a more widespread autosensitisation dermatitis.
TREATMENT OF STASIS DERMATITIS.

- If exudative or crusted treat secondary infection with oral antibiotics

Topical corticosteroid **OINTMENTS**
- mod potent or potent short term
- weak long term plus emollients
LIPODERMATOMatosclerosis

- Inflammation, necrosis & fibrosis of subcut fat
- Acute – red/purple, indurated, warm, tender & occ scaly
  - very painful
  - inner leg above medial malleolus
  - develops much more slowly than cellulitis, weeks to months
  - may be bilateral
LIPODERMATOSCLEROSIS

- Chronic - hyperpigmentation
- indurated and bound-down skin
- inverted champagne bottle
LIPODERMATOSCLEROSIS

TREATMENT

- Acute – potent topical corticosteroids under occlusion
  - infiltration subcut tissue with diluted triamcinolone suspension

- Chronic – usual support measures
DEEP VEIN THROMBOSIS

- Does not cause cutaneous erythema except in prox thigh where femoral vein lies just below skin surface
SUPERFICIAL THROMBOPHLEBITIS

- Redness, heat & tenderness
- Palpable cord or nodule
- Oedema absent
ERYTHEMA NODOSUM
OTHER FORMS OF ECZEMA/DERMATITIS

- Asteatotic eczema
- Lichen simplex
- Irritant or allergic dermatitis
ASTEATOTIC ECZEMA

- Skin dry due to climate, ageing, etc.
- Scaling and fissuring
- Net-like pattern of horizontal and vertical cracks
- Subsequent erythema, oozing and crusting
LICHEN SIMPLEX

- Usually an atopic history
- Produced by rubbing at an area of irritation.
- Can occur anywhere but often on lower leg.
IRRITANT OR ALLERGIC CONTACT DERMATITIS

- Irritant – direct toxic effect
  - burning, stinging, & pain

- Allergic – pruritus, erythema, vesicles, scaling and weeping
  - freq. neomycin-containing creams/ointments
ERYTHROMELALGIA

- Redness, burning pain and heat
- Women > men
- Primary disorder
- Secondary to other diseases
  - polycythaemia rubra vera
  - essential thrombocythaemia
  - CLL
  - autoimmune disorders
ERYTHROMELALGIA

- Intermittent
- Worsened by limb dependency, exercise and heat
- Relieved by elevation and cooling
- Bilateral
- Dusky erythema to light red
- Feels hot
- Skin usually normal between episodes
- Gout
- Carcinoma erysipelatoides
- Hereditary periodic fevers
LEG ULCERS
LEG ULCERS

- Stasis/varicose/venous ulcers
- Pressure ulcers
- Atherosclerotic ulcers
- Neuropathic ulcers
- Trauma
Not a specific diagnosis but an end result.
LEG ULCERS

- VASCULITIC
LEG ULCERS

- PYODERMA GANGRENOsum
Idiopathic

Associated with other systemic disorders including - inflammatory bowel disease
- haematologic malignancies
- connective tissue disorders
- rheumatoid arthritis
- other
LEG ULCERS

- BASAL AND SQUAMOUS CELL CARCINOMA