66 yo F with bilateral lower leg edema and pain and a remote hx of right leg injury

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Right Calf 3 days later
Necrotizing Fasciitis with Myonecrosis
Initial Right lower leg CT scan

- gastrocnemius

- Increase skin thickening with trace superficial perifascial fluid suggestive of cellulitis
3 days later, Right leg MRI

- Edema from inflammation
- Myonecrosis of gastrocnemius
Necrotizing Fasciitis

- Infection of deeper tissues progressing to muscle fascia destruction & overlying subcutaneous fat
  - Type I: polymicrobial, aerobic & anaerobic bacteria:
    - Clostridium, Proteus, E. coli, Bacteroides, Enterobacteriaceae
  - Type 2: monomicrobial
    - usually Group A Strep or other beta hemolytic strep
    - Classically the “flesh-eating bacteria”
Necrotizing Fasciitis

• Risk factors:
  – DM, peripheral vascular disease, drug use, obesity, immunosuppression, recent surgery, traumatic wounds
• Most cases involve single infection site
• May progress to compartment syndrome & myonecrosis
  – Requires fasciotomy
Also consider Necrotizing myositis

- Aggressive, necrotizing infection of skeletal muscle
- Caused by Group A Strep or other beta hemolytic strep
- Risk factors: skin abrasion, blunt trauma, heavy exercise
- Clinical manifestations:
  - initially fever, exquisite pain, edema with induration over affected muscle.
  - Progression to erythema, warmth, petechiae, bullae, and vesicles
Diagnosis of Necrotizing Fasciitis

- Considered in patients with clinical manifestations:
  - Skin inflammation, fever, toxicity, soft tissue involvement with pain out of proportion to exam, crepitus, rapid progression, elevated CK, induration, bullous lesions, skin necrosis, ecchymosis
- Dx confirmed via surgery
  - Exploration of tissue
  - Surgical debridement
  - Tissue cultures
- Radiologic imaging useful, but not required & should not delay surgical intervention
  - May or may not see gas in tissue
References

1. Stevens, Dennis L MD, Phd & Baddour, Larry M MD, FIDSA, FAHA. “Necrotizing soft tissue infections.” *Uptodate.*