

A Thorny Case of Group A Streptococcus

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Introduction

- Invasive Group A Streptococcus (GAS), an aerobic gram-positive coccus, is a rare, life threatening infection
- Rapidly progressive and significant fatality rate
- Increased incidence in elderly populations and those with certain risk factors, such as coronary artery disease (CAD)
- Important to recognize atypical, nonspecific presentations in unconventional hosts

Aim

- This case demonstrates the importance of high clinical suspicion and early recognition of GAS in an elderly host with a seemingly benign history

Case

- A 65-year-old male presented to the ED with altered mental status and acute hypoxic respiratory failure
- Skin findings revealed left first digit (LFD) erythema and an erythematous, edematous, necrotizing right upper extremity (RUE) lesion with bullae
- The patient had a history of CAD with carotid endarterectomy two years prior and hypertension
- No history of medication changes, skin infections, recent hospitalizations or surgeries, intravenous drug use, or immunocompromising diseases

A week prior:
Inoculation with a dead hosta plant in the LFD

A few days prior:
LFD became erythematous, edematous, and painful

Within 24 hrs of LFD changes:
An area on the contralateral extremity became necrotic



Figure 1: Left first digit



Figure 2: Right upper extremity lesion

Hospital Course

- Upon admission, the patient had sepsis secondary to Streptococcus pyogenes bacteremia
- Though the patient did not meet criteria for toxic shock syndrome on admission, there was high clinical suspicion for a toxin producing organism
- Bactericidal therapy aimed at reducing toxin production with penicillin G plus clindamycin was initiated
- The infection progressed until surgical debridement, necrosis down to the subcutaneous fat was noted intraoperatively, and the patient improved following medical and surgical management

Discussion

- Invasive GAS is an infection that can have a cryptic, rapidly progressing presentation
- High fatality rates in elderly populations have remained unchanged due to limited preventative measures
- Expedient recognition is crucial, and underappreciated risk factors for invasive GAS, such as CAD, need to be identified in nonspecific presentations
- It is imperative to clinically recognize toxin producing organisms and treat appropriately, while not delaying surgical debridement of necrotic tissue

Conclusion

- This case illustrates the importance of a high clinical suspicion for invasive GAS in an elderly host
- Noncontiguous presentation after a seemingly unrelated inoculation event can be distracting to diagnosis
- It is imperative to promptly initiate antibiotic treatment and consider surgery if appropriate
- It is necessary to continue to research preventive measures, such as vaccines, to reduce incidence and mortality rates