Intralesional corticosteroids as adjunctive therapy for refractory cutaneous lesions in Chronic Granulomatous Disease

Michelle Joseph, MD², Filis Sokberg, MD², Lisa Forbes Satter, MD², Sara Avant, MD, MS³, Jean Chin, MD, MSc², Carla Davis, MD³, Moora R.Gupta, MD³, Sarah Mohamed, MD³, Janan Acemoglu, MD², Meera James, DO², Roman Donohoi, MD, PhD²

Veronica Díaz, MD², Megan F.Craddock, MD², Nicholas L. Rider, DO²

(1) Baylor College of Medicine, Department of Pediatrics, Houston, TX
(2) Texas Children’s Hospital, Section of Immunology, Allergy, and Rheumatology, Houston, TX
(3) Texas Children’s Hospital, Pediatric Dermatology

Background

- Chronic granulomatous disease (CGD) is characterized by deficient neutrophil oxidative burst leading to inadequate killing of microbes, recurrent infections and inflammatory disease.
- Non-infectious complications include colitis, granulomas, autoimmune disease and poor wound healing.
- Inflammatory complications can occur at any age but are especially problematic in adolescents and adults.

Methods

- Clinical History Data Extraction
- Electronic Medical Records Review
- Literature Review

Clinical Case Presentation

- A 15-year-old male with X-linked CGD complicated by severe perianal disease and proctocolitis presented with two weeks of open draining bilateral inguinal lesions, and worsening peri-anal inflammatory disease.
- The wounds became excruciating and prevented normal ambulation.
- The patient was admitted for IV antimicrobial therapy, local wound care and management of inflammatory disease.
- Wound cultures, throughout his course, yielded growth of Klebsiella pneumonia, Candida parapsilosis, Malassezia globosa, Escherichia coli, Enterococcus faecalis and Staphylococcus epidermidis allowing for directed antibiotic and antifungal therapies.
- Despite improvement, the wounds persisted after several weeks of treatment.

Results

- Intralesional 20 mg triamcinolone acetonide administered in multiple open perianal lesions
- Three biopsies of back that yielded Malassezia globosa and staphylococcus epidermidis
- Additional intralesional 20 mg triamcinolone acetonide administered in multiple open perianal and gluteal lesions
- Right inguinal wound culture positive for Klebsiella pneumonia. Antimicrobial therapy focused.

Discussion

- Cutaneous inflammatory disease in CGD may not respond to systemic and topical therapies such as wound care.
- Other granulomatous diseases respond to intralesional corticosteroid therapy
  - Idiopathic granulomatous cheilitis responded completely after three monthly injections of intralesional corticosteroids.
  - Sarcoidosis granuloma also improve with intra-granuloma corticosteroid injection.

Conclusions

- Intralesional glucocorticoid therapy has not previously been used to treat cutaneous inflammatory disease in CGD patients, to our knowledge.
- Here, we report the first CGD patient with successful lesion resolution following steroid injection as part of therapy.
- This clinical experience suggests that intra-lesion glucocorticoid injection could become routine, effective treatment for inflammatory disease in CGD.

References