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### **Nocardia brasiliensis Infection after Hurricane Irma: Two Case reports**

Sarah Al-Obaydi MD

*HCA Healthcare*, sarah.alobaydi@hcahealthcare.com

James DeMaio

*HCA Healthcare*, James.Demaio@hcahealthcare.com

Nemer Dabage MD

*HCA Healthcare*, nemerdabage@hotmail.com

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## INTRODUCTION

- Although an increase in skin and soft tissue infections has been well documented after natural disasters, cases of *Nocardia brasiliensis* infection have not been included in prior reports.
- We present two cases of *N. brasiliensis* lymphadenitis that occurred in Manatee County, Florida after Hurricane Irma.

## CASE PRESENTATION

### Case One

- A 75 year old immune competent male may have injured his arm while retrieving a golf ball approximately four weeks after Hurricane Irma.
- Ten days later he presented to the hospital with an abscess on his left forearm and a lymphadenitis extending nearly to the axilla.
- Despite treatment with Vancomycin, the lymph nodes began to suppurate and the patient was taken to the OR for debridement.
- Intra-operative cultures grew *N. brasiliensis*. The patient was switched to Bactrim with rapid resolution of the lesions. (Figure I)

### Case Two

- A 70 year old immune competent male injured his finger while trimming a palm branch seven weeks after Hurricane Irma.
- He presented five days later with a draining abscess on the dorsal surface of his left ring finger and a cellulitis/lymphadenitis extending up his entire arm.
- The abscess and suppurating nodes were debrided in the OR. Intra-operative cultures grew *N. brasiliensis*.
- The patient was treated with Bactrim for 6 weeks with resolution of all lesions.



Figure I: Nodular lesions before and after treatment.

## CHART REVIEW

- A chart review was performed to identify recent cases of *N. brasiliensis* both at our hospital and at the outpatient ID clinic.
- During the 11 years prior to Hurricane Irma, only 8 cases of *N. brasiliensis* skin and soft tissue infections were confirmed at our hospital. No additional cases were identified in the outpatient clinic.

## DISCUSSION

- *Nocardia brasiliensis* lymphadenitis is an uncommon diagnosis at our facility with an average of 16 months between cases. Our two patients were admitted with nearly identical clinical presentations within weeks of each other shortly after Hurricane Irma.
- We suspect that after the hurricane there was prolonged surface contamination with soil particles which placed our patients at an increased risk of infection.

## RECOMMENDATIONS

- We suggest that *N. brasiliensis* be included in the list of environmental pathogens associated with tropical storms.