Chief complaint:
- Sudden right shoulder pain

History of present illness:
- A female in her thirties with polysubstance use presented to the Emergency Department with severe right shoulder pain that began suddenly two days prior to admission.
- Pain was associated with edema, erythema and arm weakness. No fever or chills.
- She was prescribed clindamycin capsules at urgent care center but did not notice improvement.
- She lives in Southern USA and swam in the Gulf of Mexico 3 weeks prior to presentation.
- No history of trauma, injury, or insect bite. No new creams or medications. No shellfish consumption. No pets. Her last intravenous drug use was over a year ago.

Past medical history:
- Chronic hepatitis C infection

Physical examination:
- BP: 141/78 mm Hg, HR: 90, T: 99.1°F (37.3°C), RR 17 and SpO2: 99%
- Right shoulder edema extending to her hand and right chest wall.
- On the lateral aspect of her right arm there was one bulla with clear fluid surrounded by ecchymosis (Figure 1). The skin was indurated and exquisitely tender to palpation without crepitus.
- No axillary lymphadenopathy, or obvious skin wound was appreciable. Radial pulse was palpable.

Laboratory data:
- CBC: WBC 21.08. Neutrophils 75.8%. Hemoglobin and platelets were normal.
- AST: 152 Units/L. ALT: 153 Units/L. Normal creatinine, bilirubin and alkaline phosphatase.
- Lactate: 1.1 mmol/L. C-reactive protein: 13.2 mg/dL.
- Creatinine Kinase: 14,592 Units/L
- HIV test was negative. Blood cultures were negative

Imaging:
- Figure 2. MRI right upper extremity showing diffuse soft tissue edema and patchy enhancement involving the muscles of the right lateral chest wall, shoulder, arm, and forearm.

Take Home Points
- Infections caused by toxigenic strains of *Clostridium sordellii* are rare and often fatal. Lethal and hemorrhagic toxins are responsible for local necrosis and increased vascular permeability which lead to a toxic shock syndrome.
- Common clinical scenarios include: myonecrosis in injection drug users, traumatic injuries, endometritis in women undergoing medical abortions with mifepristone or normal childbirth.
- Spontaneous infections have been reported in patients with alcoholic liver cirrhosis, malignancies and immunosuppression.
- Presentation is characterized by an afebrile infection, leukemoid reaction and increased hematocrit.
- Imagine studies reveal diffuse tissue edema without gas formation.
- Emergent surgery is the main treatment. Clindamycin suppresses toxin synthesis.
- Prognosis is poor and the overall mortality rate has been documented as high as 69%.

References