

# A Life and Limb Saved: Life Threatening Necrotizing Soft Tissue Infection with TSS Multi-Organ Failure and Large Areas of Tissue Loss

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## CASE REPORT

62 year old female presented to ER with erythema and drainage to the left leg and thigh.

PMHx: Chronic right stasis ulcer, Raynaud's disease, Cholesterol storage disease.

Her condition deteriorated quickly with fever of 103F, nausea, diarrhea, vomiting and blisters to the left leg. She was brought to the OR urgently and debridement was done to the left lower leg and thigh. Repeat debridement was necessary the next day. Culture confirmed group A Strep. She was treated for multi-organ failure and remained intubated on vasopressors for several days. She improved and was extubated. Negative Pressure Wound Therapy was initiated to the left leg and left thigh wounds using Instillation therapy. Twice weekly dressing changes were complex. Irrigation with NS 35-45 cc instillation, 10 min dwell time every 3.5 hours. Cleanse dressing removed slough within a couple of dressing changes. Patient received 5 HBOT treatments during the stay. She was discharged to LTACH facility after 20 days and returned for partial thickness grafting a month later. Patient received additional 7 HBOT. A small remaining wound was closed with negative pressure therapy.

## BACKGROUND

Group A Streptococcus (GAS) is a cause of necrotizing soft tissue infection. Toxic shock syndrome is a complication causing systemic toxicity, possible limb loss and death. Estimated 3.5 cases of invasive GAS gangrene infections per 100,000 persons, fatality rate to 60%. Risk factors include trauma, obesity, DM, immune suppression, IV drug use. Early surgical exploration is imperative to establish the diagnosis, evaluate tissue involvement and debridement.

## DISCUSSION

The recognition of impending deadly infection, prompt surgical intervention, intensivist care for multi organ failure, and expertise of the wound and hyperbaric team was lifesaving. Incorporating HBOT and new modalities to manage large tissue loss allowed for complete healing.

### Left Thigh



### Left Leg

