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A Severe Case of Necrotizing Fasciitis of the Abdomen: A Survivor Story

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INTRODUCTION

Mortality associated with necrotizing fasciitis remains high despite advances in critical care and antibiotic therapy. This is particularly so in patients with abdominal and retroperitoneal necrotizing fasciitis. Our case highlights a severe case of abdominal necrotizing fasciitis in a patient who went on to full recovery utilizing an aggressive approach with multiple specialty involvement.

CASE REPORT

The patient is a 53-year-old female, transferred from an outside facility for what appeared to be perforated diverticulitis with pelvic abscess and subcutaneous air in the soft tissue, extending from the anterior abdominal wall up to the left chest wall. A CT scan was performed, which showed the above findings, and the patient was arranged for transport to our institution. Upon arrival, the patient was taken to the operating room emergently for exploratory laparotomy. She was found to have perforated diverticulitis with extensive fecal peritonitis and extensive necrotizing fasciitis involving the left anterior abdominal wall, the left flank, and the left lower chest wall. The patient underwent sigmoidectomy with left colon left in discontinuity, segmental small bowel resection, washout, drainage of abscesses, extensive wide debridement of left anterior abdominal wall, left flank, and left chest. Prior to leaving the OR she had a custom made vac pack applied to her large wound.

She underwent several trips to the operating room for further debridement and washouts. During her long hospital course, infectious disease, surgical intensivists, and plastic surgery services were involved with ongoing management. Once the infection was under control, nylon

sutures were placed in the skin and the skin stretching was started. After the skin could not be stretched any further (a month later), biological graft was used to cover the viscera and the thoracic cage. After a few months, she had split thickness skin graft placed over granulated biological graft. She was discharged to rehabilitation after 6 months of being hospitalized. Seven months later she had coverage of the left half of the abdomen with a left anterolateral thigh supercharged local muscle perforator flap by plastic surgery. She is a 4 years post surgery and doing well. There are no fistulas, but she has been admitted a few times for partial bowel obstruction which tends to resolve with conservative management.

DISCUSSION

To achieve optimal management of necrotizing fasciitis it is necessary to diagnose the condition as early as possible with early and effective surgical treatment. We were extremely aggressive with tissue debridement. Most of the anterior abdominal wall and left chest wall were excised. After the initial debridement, infectious disease and surgical intensivist practitioners were consulted. It was obvious that the patient would require several trips to the operating room and anesthesia was also intimately involved. These cases require daily washouts and debridement for any chance of survival. In addition, serial exams between debridement by in-house staff is recommended to assess for any further tissue compromise. In conclusion, prompt surgery, adequate antimicrobial therapy, and aggressive resuscitation are the keys to any potential survival. Also needed is a multispecialty approach involving infectious disease, surgeon, anesthesia, intensivist, and plastic surgery.



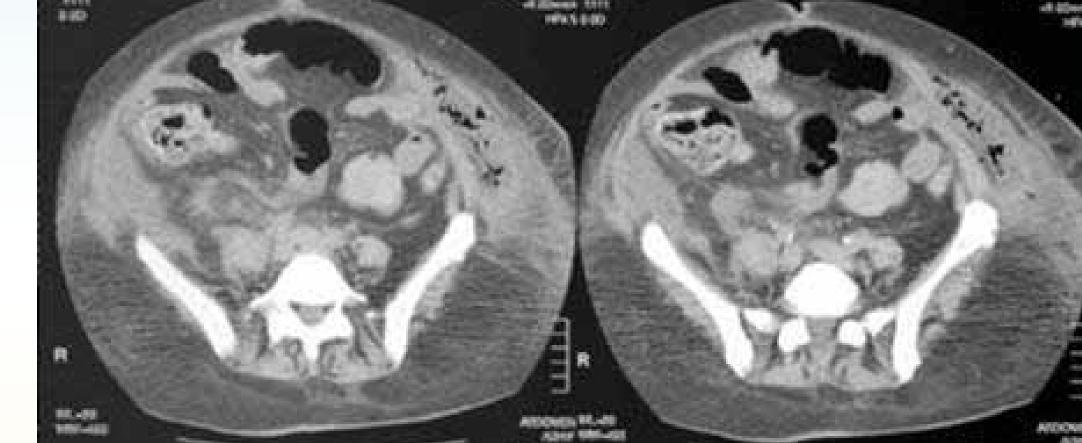


Fig 1. CT scan shows the extent of necrosis extending from the pelvis to the chest wall.



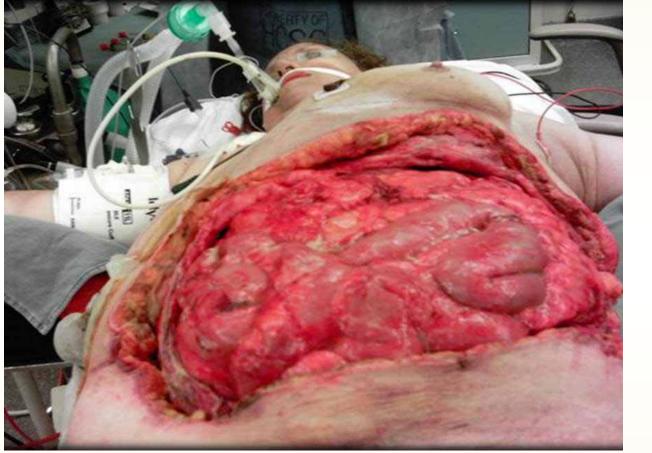


Fig 2. After initial debridement, patient has lost entire anterior abdominal wall and left flank and left lateral chest wall.

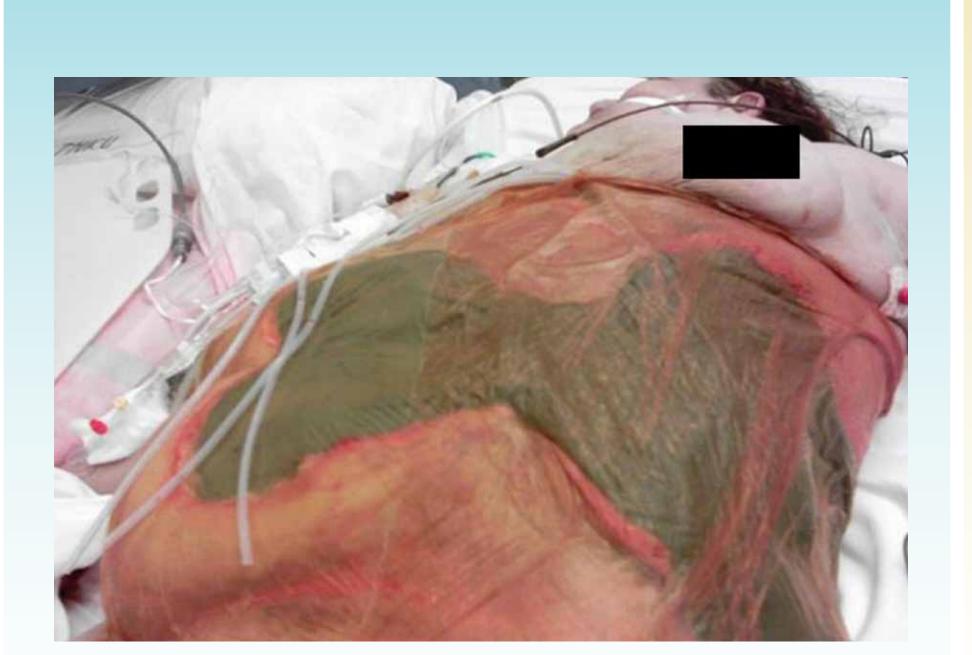


Fig 3. Local wound vac systems with skin edges stretched with sutures.

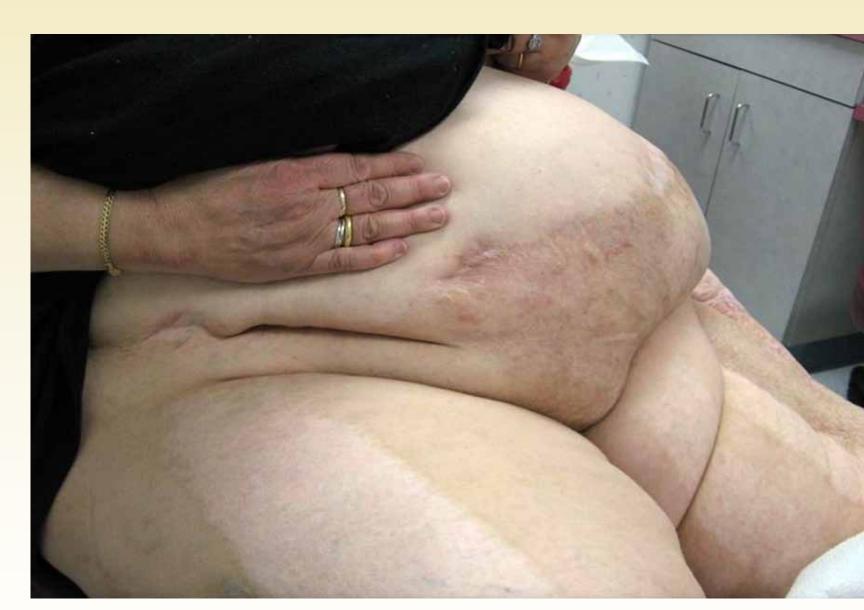


Fig 5. Current image of patient's abdomen.



Fig 4. The entire viscera was then covered with a biological graft.

References

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