Necrotizing Fasciitis of the Lower Extremities Following Perforation of a Poorly Differentiated Metastatic Carcinoma with Neuroendocrine Features

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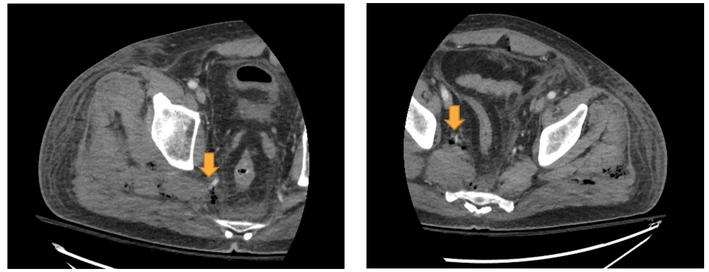
UPMC Community Osteopathic Colorectal Surgery

Introduction

Necrotizing fasciitis is an aggressive infection of the soft tissues that requires immediate intervention with surgical debridement and antibiotics. Cases are usually associated with a history of trauma, skin breach, immunosuppression, or recent surgery. Here, we describe a case of necrotizing fasciitis following an exploratory laparotomy which infected the patient's lower extremities and required extensive orthopedic debridement. There are few cases reported of necrotizing fasciitis following a colon perforation and even fewer associated with colon cancer.

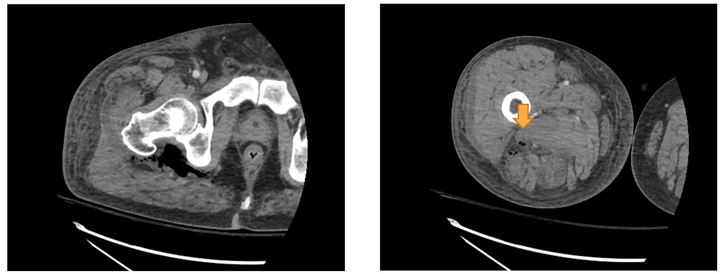
Case Discussion

49 yo M who was being treated with chemotherapy for a poorly differentiated metastatic carcinoma with neuroendocrine features of the cecum presented to the emergency room for complaints of nausea, vomiting, and worsening abdominal pain. An initial abdominal x-ray showed no free air, but he was brought to the OR due to continued deterioration. Upon entering the abdomen, some inflammatory exudate was noted around the tumor site, but no succus or free fluid. Right hemicolectomy was performed without complications and the patient was given an ileostomy.



CT scan demonstrates air within the deep tissues beginning at the psoas muscle and also involving bilateral gluteal muscles

Later that evening, the patient complained of worsening pain in his right leg. The following morning, erythema was noted along the patient's lateral leg along with tenderness on palpation. CT imaging of the leg was performed which showed free air that appears to tract from the psoas to the bilateral gluteal muscles and along the fascial planes of the leg. The patient was brought to the OR by orthopedics for urgent debridement and washout of both hips and the right thigh.



Signs of a deep tissue infection continue as we look further down the patient's right leg. There is extensive involvement of the femoral head and tracking down the facial planes of the posterior muscles.

His cultures were positive for *Clostridium* and he required multiple washouts with prolonged antibiotics. The wound was eventually able to be closed and he was discharged to a rehab facility. He re-presented a few weeks following his discharge to the ED for recurrence of pain. Imaging showed recurrence of necrotizing fasciitis. He was sent to a tertiary facility, but ultimately passed away from sepsis.

Conclusion

There is a reported association of colon cancer with bacterial infections, such as Clostridium. This patient's perforation allowed seeding of his abdomen leading to a rare complication of necrotizing fasciitis which appeared to have travelled along his psoas muscle to infect his lower extremities. Early recognition and debridement is necessary to stop further spread of infection and gain control for adequate treatment.

References

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