**Case report: A case of ruptured appendicitis presenting as necrotizing soft tissue infection of the flank**

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We present a case of a 69 year old male with a medical history significant for Alzheimer's dementia, Diabetes mellitus type 2, and peripheral artery disease on clopidogrel and cilostazol who presented to his PCP with complaints of right flank swelling with associated pain as noted by his caretaker for the past 24hrs. Due to his dementia, he was not able to give a reliable history regarding his symptoms, though his daughter who serves as his caretaker mentioned that she had only noticed his right flank increasing in size for the past 24 hours, and had noted that he was ambulating less than usual. He was admitted for concerns of right flank abscess vs hematoma. Physical exam was significant for a blood pressure reading of 90/60 mmHg and tachycardia of 110cpm with a large, 20x20cm, fluctuant, warm to touch mass over the right iliac crest with crepitations on palpation with a stethoscope. Significant work up on admission showed significant leukocytosis of 21K/uL and markedly elevated inflammatory markers (ESR: >120mm/hr, CRP: >190mg/L). CT of the abdomen suggestive of ruptured appendicitis and extensive necrotizing soft tissue infection involving the right retroperitoneal fat, right quadratus lumborum, right iliopsoas muscle and right superficial fat and subcutaneous tissue overlying the right flank. Sepsis protocol was initiated, and the patient was started on IV NS at 30mg/kg/hr, clindamycin, vancomycin and meropenem followed by debridement and drainage of necrotic tissue and abscesses. Intraoperative wound cultures grew *Actinomyces odontolytica*, and 2 different strains of *Escherichia coli* pointing towards intraabdominal source, with appendix as the likely culprit of the extensive necrotizing infection. Antibiotics were then changed to ampicillin-sulbactam based on cultures and Infectious disease recommendation, with antibiotic coverage for a total of 6 weeks. He was discharged to LTAC where his condition improved and was eventually discharged home. This case presents a rare and life threatening complication of acute appendicitis. This case highlights the importance of considering intraabdominal sources of infection when dealing with soft tissue infections in the abdominal region in patients who are unable to provide a proper history. Early recognition and prompt medical and surgical intervention is key in preventing significant morbidity and mortality in such cases.