

## 72-year-old with abdominal wall abscess

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A 72-year-old female presented to the Emergency Department (ED) reporting one week of increasing abdominal pain, distension, and discoloration over her mid abdomen. She had an abdominal ventral hernia repair with mesh 6 months prior. The incision had healed well after surgery but began swelling and draining a small amount of greenish fluid the week prior. She went to her primary care physician and was placed on antibiotics for concerns of cellulitis; however she did not fill the prescription. Associated symptoms included fatigue, nausea, and shortness of breath. She denied fevers or vomiting. Pertinent past medical history included coronary artery disease, hypertension, hyperlipidemia, methacillin resistant staphalococcus aureus (MRSA) skin abscesses, and an abdominal wall reconstruction with bilateral component separations and implantation of mesh 6 months ago. Physical examination revealed an afebrile, obese female in no distress with a tender 6×8 cm area of erythema with central greenish discoloration over her mid abdomen (Image 1, black arrow). An abdominal/pelvic computed tomography (CT) scan with intravenous (IV) contrast was obtained (Image 2, red arrow) revealing a large anterior abdominal wall abscess centered predominantly in the musculature with superficial extension into the subcutaneous fat, all above the mesh. The patient was started on IV vancomycin and piperacillin/tazobactam due to her history of MRSA and admitted to general surgery. She was taken to the operating room for open drainage of the abscess,

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debridement of old mesh, primary closure of the fascia, and placement of a negative pressure wound vacuum (Figs. 1 and 2).

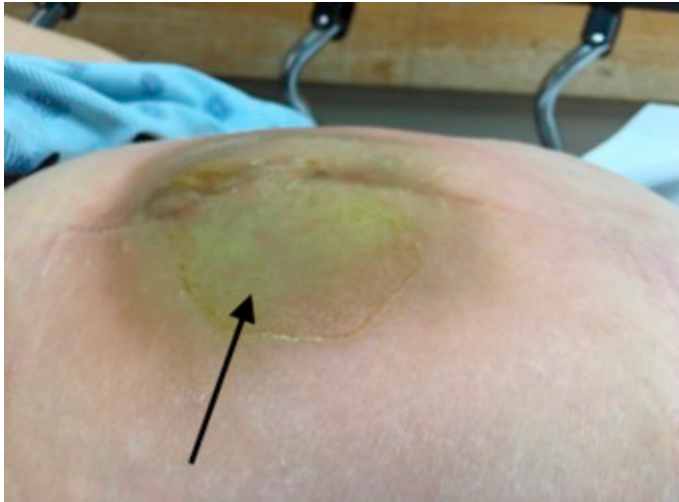


Fig. 1. Photo of abdominal wall over previous hernia repair site.



Fig. 2. Abdominal/Pelvic CT revealing anterior abdominal wall abscess.

## Interactive Questions

### Question 1:

A patient 24 hours post operative presents with low grade fevers and mild tenderness over an abdominal hernia incision. What is the most appropriate course of action?

- Remove sutures and debride wound
- Remove sutures and place a negative pressure wound vacuum
- Observation

#### *Explanation:*

A fever in the first 48 hours after a surgery is unlikely to represent wound infection. If the patient has no signs of systemic illness it is appropriate to simply observe the wound. There is no need to reopen a wound or begin antibiotics at < 48 hours after surgery unless systemic symptoms are present. If systemic symptoms and significant wound drainage are present then it would be appropriate to complete a gram stain to rule out streptococcal and/or clostridial infection.

#### *Reference:*

Stevens DL, Bisno AL, Chambers HF, et al. Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: 2014 Update by the Infectious Diseases Society of America. *Clinical Infectious Diseases*. 2014 July 15, 2014;59(2):e10-e52.

- Begin empiric antibiotic treatment with dicloxacillin
- Begin empiric antibiotic treatment with vancomycin

### Question 2:

A 56 yo male has a fever of 39 C, WBC of 15K and a 7 cm indurated, red lesion at a midline abdominal hernia repair site. He is allergic to cephalosporins. What is the most appropriate antibiotic? What if the wound were around a colostomy?

- (1) Vancomycin; (2) levofloxacin + metronidazole

*Explanation:*

Vancomycin is the most appropriate antibiotic regimen for a patient with a clean wound on the trunk, head, neck, or an extremity. It provides coverage for MRSA until it can be ruled out. Cefazolin would also be appropriate; however, not if the patient is allergic to cephalosporins. Levofloxacin + metronidazole are appropriate coverage for a patient with a wound of the perineum or operation of the GI or female genital tract. Single coverage carbapenam can also be used in this scenario as well as a cephalosporin + metronidazole if the patient does not have a cephalosporin allergy.

*Reference:*

Stevens DL, Bisno AL, Chambers HF, et al. Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: 2014 Update by the Infectious Diseases Society of America. *Clinical Infectious Diseases*. 2014 July 15, 2014;59(2):e10-e52.

- (1) Vancomycin; (2) cefazolin
- (1) Levofloxacin + metronidazole; (2) vancomycin
- (1) Piperacillin/tazobactam; (2) levofloxacin + metronidazole
- (1) Carbapenam; (2) metronidazole