

EM CASE OF THE WEEK

BROWARD HEALTH MEDICAL CENTER DEPARTMENT OF EMERGENCY MEDICINE



Flank pain can often be caused by kidney stones, aortic aneurysm, trauma, and a variety of other conditions. Quick assessment of the patient with ultrasound can rule out several life threatening diagnosis.

EM CASE OF THE MONTH

EM Case of the Month is a monthly “pop quiz” for ED staff. The goal is to educate all ED personnel by sharing common pearls and pitfalls involving the care of ED patients. We intend on providing better patient care through better education for our nurses and staff.



Life Threatening Flank Pain

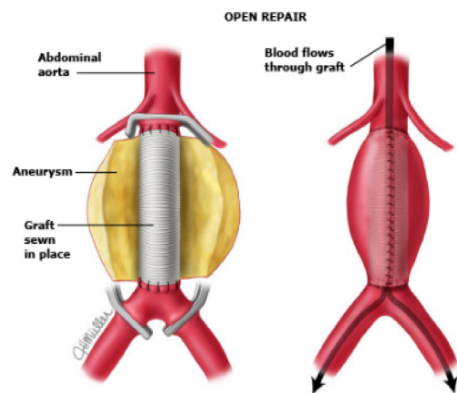
A 78 year old male former smoker presents to the ED with substantial right flank pain. Per EMS, he called 911 for shortness of breath and excruciating pain. The patient presented with mild hypotension, tachycardia, and tachypnea. He was awakened from sleep due to the pain, which is located on his right flank, constant, non-radiating, and the worst pain the patient has ever felt. The patient is stabilized, given pain medication, and rushed to CT to rule out a kidney stone. While in the CT scanner you hear them call a CODE BLUE and arrive to find your patient pale and pulseless. What is the most likely diagnosis based on this clinical vignette?

- A. Renal Calculi
- B. Diverticulitis
- C. Abdominal Aortic Aneurysm
- D. Ischemic Bowel
- E. Superior Mesenteric Artery Syndrome



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Abdominal aortic aneurysm repair



Abdominal Aortic Aneurysm

The correct answer is C. While a renal calculi cannot be ruled out based upon the question scenario, an abdominal aortic aneurysm is more likely. Given the patient's age, smoking history, and symptoms such as tachycardia and tachycardia, an aneurysm should be at the top of the diagnosis. While a kidney stone can be described as the worst pain of ones life, it is generally not considered a life threatening emergency.

Discussion:

Abdominal aortic aneurysm (AAA) is a common and potentially life-threatening condition. Without repair, ruptured AAA is nearly uniformly fatal. Of the 50 percent of patients with ruptured AAA who reach the hospital for treatment, between 30 and 50 percent will die in the hospital. The primary goal of elective AAA repair is to prevent rupture and minimize aneurysm-related morbidity and mortality. The assessment of risk for elective aneurysm repair versus the risks of observation should include the patient's expected survival from other medical conditions. Repair may not be warranted if the expected mortality rate from another condition is higher than the expected aneurysm-related mortality.

Only a small proportion of patients diagnosed with AAA meet the criteria for intervention at the time of the initial diagnosis. Based upon the result of randomized trials, patients with AAA <5.5 cm in diameter should be managed conservatively. However, the natural history of AAA is one of progressive expansion necessitating periodic clinical evaluation and surveillance of aneurysm diameter to identify AAA that exceeds the threshold for repair or is rapidly expanding .

Medical therapies for AAA focus on the management of modifiable risk factors for AAA and cardiovascular disease with the goals of reducing the need for intervention due to aneurysm expansion or rupture, reducing morbidity and mortality associated with repair, and reducing cardiovascular morbidity and mortality.

Take Home Points

- When it comes to diagnosing AAA in the ED, ultrasound is your best friend. Even if you only have a mild suspicion, grab the US and place it on the patient's abdomen. You may just save their life.
- USPSTF recommends an abdominal ultrasound for any male 70 or older who is a current or former smoker.

IF YOU HAVE A TOPIC YOU WOULD LIKE TO SEE DISCUSSED IN A FUTURE EDITION, PLEASE SEND IT TO DR. JASON MANSOUR AT JMANSOURMD@GMAIL.COM

This week's case was prepared by James McKee. James rotated at Broward Health North in February 2015. He begins an Emergency Medicine Residency in Rhode Island after graduating from Nova Southeastern University in May.

