



You Are a **Dynamite!**

Akira Yamada, MD*¹, Makiko Mori, MD*¹, Yasuhiko Ikehara, MD*², Sunao Yamauchi, MD*¹

Department of Emergency Medicine, Yuuai Medical Center, Okinawa, JAPAN.*¹

Department of General Internal Medicine, Yuuai Medical Center, Okinawa, JAPAN.*²

[CC] Fever, Pain in the left side of the body

[HPI]

A 69-year-old male with PMH of right pontine hemorrhage 5 years ago presents to ED with **fever and pain in the left side of the body**. He has residual left sided numbness and back pain as a result of the pontine hemorrhage.

8 days prior to the ED visit, he had **worsening of the pain in the left side of his body** and developed **low grade fever**. He states he had worsening of previously existing back pain and also reports **new onset pain in entire left side of his body**. He had **fever over 38.0°C (100.4°F) a couple days before the day of presentation**. Ever since his symptoms started, he has no bowel movement and has not been able to eat. He has been drinking alcohol and taking OTC analgesics to manage the pain.

On the day of presentation, his wife called ambulance because he could not ambulate himself at all.

[PE]

VS: A&OX3. **Temp 37.8°C (100.0°F), HR 115bpm, SBP 86mmHg (Diastolic BP unable to measure)**, RR 20/min.

General Appearance: Appears to be comfortable in bed.

HEENT: Conjunctival pallor noted.

Lungs: CTAB

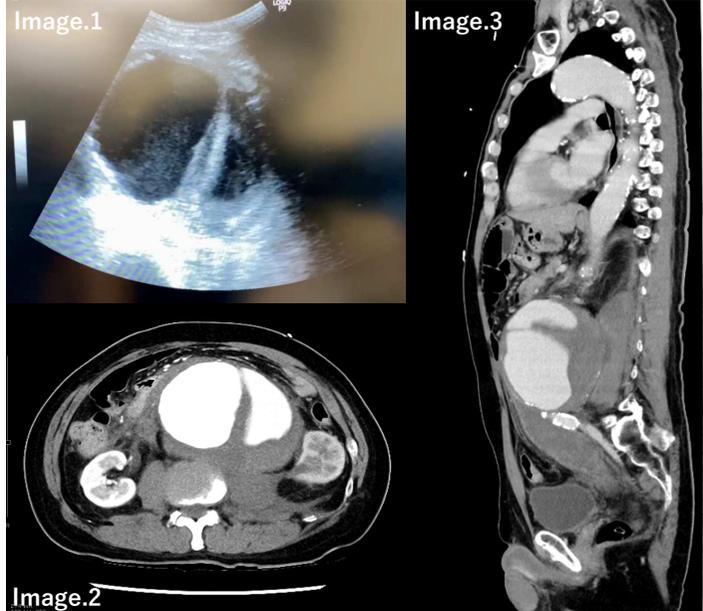
Heart: Normal S1, S2. No murmurs, gallops, rubs.

Abdomen: **Firm. No tenderness**. No rebound or guarding. **There is a large, firm, non-pulsating and non-tender mass around umbilical area.**

Neurological: No focal neuro deficit.

Questions:

1. What is your differential diagnosis?
2. How are you going to manage this patient in ED?



Answers:

1. Differential diagnosis includes but not limited to **septic shock, shock from GI bleeding, intra-abdominal hemorrhage, intra-abdominal hematoma, intra-abdominal abscess, vertebral osteomyelitis, discitis, infectious endocarditis, aortic dissection, and rupture of AAA.**
2. Obtain at least two **large bore IVs** and initiate **fluid resuscitation**. At the same time, perform **RUSH exam** to investigate the cause of shock.

[Case Discussion]

On arrival, the patient was found to be in **shock**. Fluid resuscitation was initiated immediately. POC venous blood gas analysis showed significant anemia with **Hb 6.8**. Initially, shock from GI bleeding was suspected but rectal exam was negative for melena or hematochezia. Since the patient had fever, septic shock was considered and blood & urine cultures were obtained. CT scan was also ordered in search of the possible source of infection. The POC renal function test showed **AKI with Cre 3.6mg/dl**. The decision was made to perform CT without contrast first and it showed **a giant AAA with a diameter of 13cm (5.1 inch)**. It was only after that time when POCUS was performed by EM intern, which showed **significantly enlarged abdominal aorta with a flap within the lumen** (Image.1). Considering his HPI and CT findings, **infected abdominal aortic aneurysm** or **impending rupture of AAA** were suspected and the CT with contrast was obtained (Image.2&3). On further questioning the patient, he admitted that **he had sudden onset of severe back pain when his symptoms started 8 days ago**, but he did not seek medical attention at that time.

CT with contrast showed an evidence of aortic dissection within the aneurysm and there was an enhancement within the false lumen.

The diagnosis of **impending rupture of dissecting AAA** was made. Immediate consultation was made to cardiovascular surgery team and the patient was taken to OR emergently.

Clinical Pearls & Take Home Messages:

1. Serious killer diseases (e.g. AAA rupture, aortic dissection, SAH) can present days or even weeks after the onset of symptoms, and their presentations at the time may be atypical.
2. Diseases that has **“rupture pathology”, such as aortic aneurysm rupture or SAH, can present as if they were “inflammatory diseases” as time from the onset passes by**. For example, ruptured AAA can mimic gastroenteritis or diverticulitis, since it causes inflammation (peritonitis) around the ruptured portion.
3. It is important to perform systemic evaluation with **RUSH exam** when evaluating the patient with shock.