“SBP or Not To Be? That is the Question”

Robert Assibey MD, PGY-I; Randeep Johl MD, PGY-III; Johnny Yep DO, Attending
Family Medicine Residency Program • San Joaquin General Hospital, 500 West Hospital Road, French Camp, CA 95231

Background

- Abdominal aortic aneurysm (AAA) is the most common true arterial aneurysm, defined as segmental full thickness dilation of a blood vessel that is 50% greater than the normal aortic diameter
- 20-30% of patients with a rupture have known history of AAA, which may present as abdominal, back or flank pain
- Even after presentation to a physician, a misdiagnosis as renal colic, diverticulitis, perforated viscus, GI hemorrhage and ischemic bowel occurs 30% of the time
- Significant risk factors: Old age, male, cigarette smoking, atherosclerosis, caucasian race, hypertension, other large aneurysm

Case Report

This is a 46 year old male with a history of hepatic encephalopathy and cirrhosis, CVA, seizure disorder, pancreatitis, and multiple other comorbidities presents with an altered level of consciousness. Patient reported increasing lower back pain for past 3 weeks, and was prescribed Norco by his PCP.

Social History: Lives with father who is caretaker, Denies alcohol use last use 3 years ago, Denies IVDA, Denies smoking
Surgical history: TIPS (transjugular intrahepatic portosystemic shunt) procedure, Splenectomy
Medications: Lactulose, Mephyton, Xifaxan, Omeprazole, Lasix, Keppra, Zofran, Norco

Hospital Course

- Patient was admitted for suspected SBP, acute hepatic encephalopathy and was started on antibiotics and albumin
- Patient was continued on Norco for his back pain. KUB and CXR did not find definitive source of pain
- IR guided paracentesis yielded 80cc fluid. Did not resolve symptoms
- Physical exam remained unchanged with back pain greater than abdominal pain, until HD#6, when patient started complaining of abdominal pain greater than back pain.
- A repeat CT abdomen pelvis was obtained with contrast, and a ruptured AAA was found. Vascular surgery was consulted and an emergency Endovascular Aortic Aneurysm Repair was performed
- Patient’s recovery was complicated by testicular swelling, and left inguinal hernia.

Laboratory and Imaging

Laboratory	Result	Reference Range
WBC	27,400	4,500 – 11,000 µl
Hemoglobin	13.8	13.3 – 17.7g/dl
Platelets	219	140 – 400 x 10^3 µl
BUN	42	5 – 23 mg/dl
Creatinine	1.53	0.5 – 1.40 mg/dl
Alkaline Phos	396	42 – 121 IU/L
AST	144	0 – 37 IU/L
ALT	65	0 – 35 IU/L
T. Bilirubin	2.5	0.2 – 1.2
Ammonia	130	31-123

Ascites Fluid	Result	Reference Range
Type of Fluid	Ascites	n/a
Fld Appearance	Hazy	Clear
Fld Color	Yellow	Colorless
Tot Nuc Cell ct	374	n/a
RBC body fluid	<1000	n/a
Fluid Neutrophil	67	n/a
Fluid Lymphocyte	9	n/a
Fluid Monocyte	24	n/a
Fluid other cells	0	n/a

Physical Examination:
Vital signs: T: 39.2 BP: 129/73 HR: 108 RR:16 O2 100% RA
GENERAL: Alert/oriented self and place, confused, mild distress, disheveled, lying on right side
HEENT: Atraumatic normocephalic, Extraocular movements intact, pinpoint pupils, dry mucous membranes, poor dentition
CARDIOVASCULAR: Tachycardic, 2/6 systolic murmur LSB appreciated
ABDOMEN: Tense, tender to palpation diffusely, non-distended, midline scar, bowel sounds present
EXTREMITIES/BACK: Tender to palpation diffusely across the back, worse in lower back. No peripheral edema, 2+ peripheral pulses bilaterally

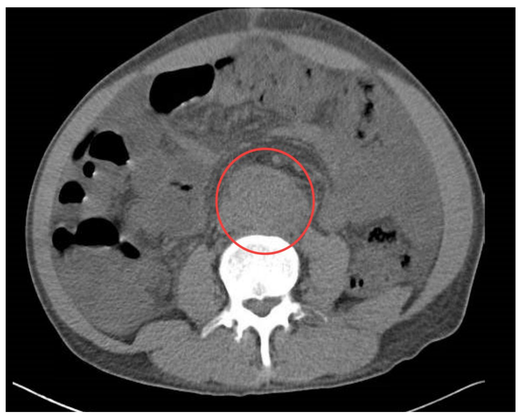

Fig 1. 11/9/17 :CT abd/pel without contrast

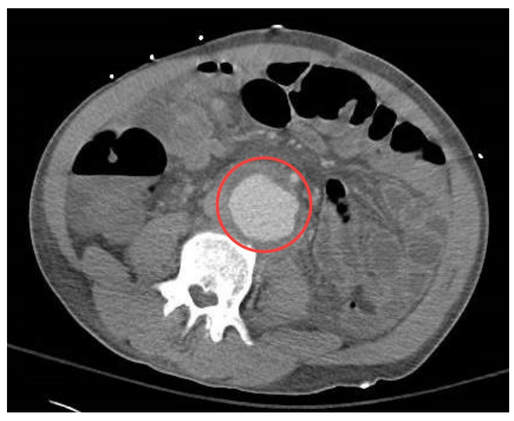

Fig 2. 11/14/17 CT abd/pel with contrast

Discussion

- Abdominal Aortic aneurysm is typically diagnosed via imaging. Physical exam can diagnose large aneurysms, but occurs in less than 50% of cases
- Imaging modality of choice is abdominal ultrasound, but symptomatic AAA should be investigated with computed tomography.
- Once discovery of ruptured AAA, patient was immediately upgraded to ICU for monitoring and prepared for surgery
- IR guided paracentesis found there to be loculated ascites, which likely contributed to the containment of the rupture.
- Due to the rapid nature of expansion and rupture, there was concern for an infectious aneurysm, however a definitive infectious source was not found.
- Patient subsequently had a successful EVAR which has less complications when compared to an open procedure.

Conclusions

- Although typical presentation of an AAA is abdominal pain and back pain, this patient had valid explanations for the abdominal and back pain in isolation.
- Patient had multiple admissions in the past for altered mental status and hepatic encephalopathy, and had a history of chronic back pain.
- The patient had an elevated wbc count, altered mental status, and a history of liver cirrhosis. Which lead to the diagnosis of SBP causing the symptoms.
- The patient’s history led the team to have anchoring bias, and to not expand on the differential list.
- In conclusion, having a broad differential list is always important in every case. Regardless of known history and somewhat typical presentation.

References

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