Cirrhosis and Obscure bleeding: A clinical mystery solved by physical exam

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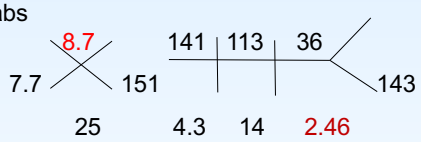
Introduction

Psoas hematoma is a rare but potentially fatal cause of bleeding in patients with alcoholic cirrhosis. The diagnosis is not always obvious based on exam and diagnostic workup, but it can be life threatening and hence should be considered in patients with cirrhosis and hemoglobin drop.

Case Description

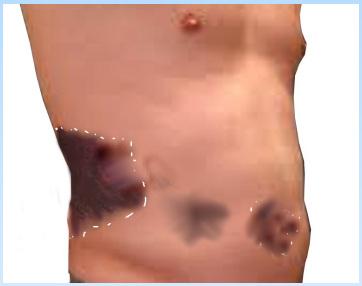
- 62-year-old female presented with altered mental status for 3 days.
- Past medical history significant for alcoholic cirrhosis Child Pugh Class C, MELD-Na 29, decompensated by hepatic encephalopathy and chronic ascites.
- Physical exam with stable vital signs, diffuse ecchymoses and asterixis.
- Labs



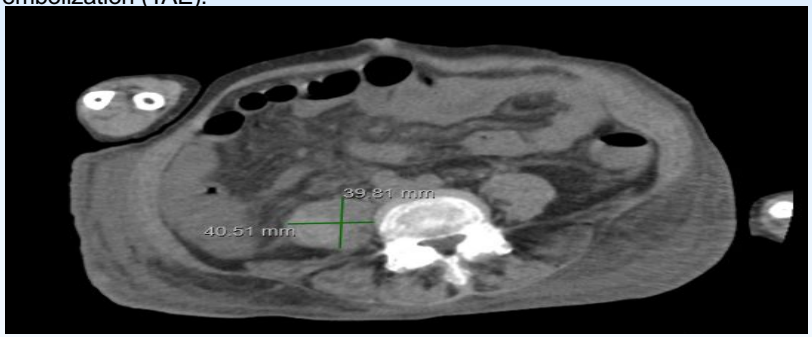
- ALT 40, ALT 18,, bilirubin 5.8, MCV 101
- Initially admitted for management of Grade III hepatic encephalopathy, and treated with lactulose.

Hospital Course

- On day 2 of admission clinical course was complicated by a precipitous drop in hemoglobin to 5.4.
- Repeat labs significant for an INR of 2.5 and thrombocytopenia of 100, 000.
- Repeat Physical exam revealed worsening ecchymosis on her chest and arms and impressive bilateral flank ecchymosis consistent with Grey-Turner Sign.
- CT scan Abd/pelvis was done for the concern of intra-abdominal bleeding and revealed bilateral interval psoas muscle hematomas.
- Given the patient was a poor surgical candidate, the decision was made to manage conservatively with transfusion of 2 units of blood and Vitamin K.
- Considering the severity of bleed, she was transferred to a higher level of care for consideration of transcatheter arterial embolization (TAE).



Grey Turner sign



Interval enlargement and increased attenuation of the right psoas muscle measuring 4.1 x 4.0 cm at the L5 level

Case , Age, Gender	Involved site	Time to diagnosis	Time to death	Treatment	Outcome
Case #1; 48/F	Rectus Abd	-	14 d	none	Death
Case #2; 46/F	Rectus Abd	<1 d	>10	Conservative, FFP	Death
Case #3; 56/M	Rectus Abd	<1 d	-	Conservative, FFP	Alive
Case #4; 58/F	Rectus Abd	<1 d	-	Liver transplant, evacuation	Alive
Case #5; 60/M	Iliopsoas	6	29	Conservative ,FFP	Death
Case #6; 62/M	Iliopsoas	<1	4	TAE	Death
Case #7; 56/M	Iliopsoas	-	10	Conservative ,FFP	Death
Case #8; 60/M	Iliopsoas	<1	150	Conservative ,FFP	Death

Published case reports of psoas muscle hematomas and associated high mortality rates.

Discussion

- Decompensated liver cirrhosis is commonly associated with thrombocytopenia and coagulopathy with complications including easy bruising and bleeding tendency.
- Psoas muscle hematoma is a rare cause of bleeding with high mortality rate of up to 75% as noted in limited case reports.
- Clinical features include acute onset back pain, abdominal or lower extremity pain, groin pain, palpable lower abdominal mass as well as possible femoral nerve palsy.
- Not all cases have these clinical features, as this patient only had worsening ecchymosis.
- Diagnostic modalities include CT scan, ultrasound, and interventional angiography.
- Management is usually conservative with transfusion of blood products and coagulation factors. Interventional options include transcatheter arterial embolization(TAE) and surgical removal of hematoma.

Learning Points

- Recognize psoas hematoma as an obscure but potentially life threatening cause of bleeding in patients with alcoholic cirrhosis.
- High clinical suspicion and meticulous physical exam can lead to prompt diagnosis and early intervention.
- Complications include hemorrhagic shock and femoral nerve palsy.
- Role of TAE and surgical evacuation as possible treatment modalities.

References

Iliopsoas Muscle Hematoma Secondary to Alcoholic Liver Cirrhosis by Suguru Yamashita,*Nobutaka Tanaka, Yukihiro Nomura, Takaya Miyahara and Takatoshi Furuya

Muscle hematoma: A critically important complication of alcoholic liver cirrhosis by Chiyo Sugiyama, Akifumi Akai, Noriyoshi Yamakita, Tsuneko Ikeda, and Keigo Yusada