Case Report: Too Thick to Test

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Case Report: Too Thick to Test

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H&P

60-year-old gentleman with past medical history significant for alcoholism (6 to 12 cans of beer per day for 30+ years), hypertension, depression, anorexia transferred to our hospital for persistent fever, symmetric polyarthritis, and weakness. At presentation to the outside hospital one week prior to transfer, the patient was diagnosed with acute encephalopathy due to alcohol withdrawal. Fevers were occurring in the ICU intermittently with a T-max of 102.6 °F without a temporal pattern. Patient was complaining of polyarthralgia particularly in the left elbow, knees, and ankles. Patient was noted to have persistent hyponatremia (Na: 119, ETOH level > 10) presumably from chronic alcoholism, which was treated with IV fluids.

Patient fulfilled SIRS criteria on admission and was started on broad-spectrum antibiotics for possible infection. Fevers did not resolve with antibiotics, but improved after a single dose of solumedrol 50 mg IV for treatment of polyarthritis.

Of note, patient was followed at Cleveland Clinic 2.5 years ago for a mysterious rash on his arms and legs. His rash was biopsied and read as dermatitis. His rash resolved spontaneously and did not leave a scar after resolution. He has not had any subsequent recurrence of the rash.

BP: 127/89 mmHg **Resp:** 20 bpm
Pulse: 131 bmp **Temp:** 101.2° F (38.4° C)

Relevant Physical Exam

Dermatologic: no rash, no scars

Elbows: left elbow effusion/warmth

Knees: warm to palpation, ROMi, (-) synovitis, (-) effusion

Ankles: R>L ankle effusion/warm/ no erythema

Neurological: AAO x3, Cranial Nerves II-XII grossly intact, 5/5 muscle strength b/l upper/lower extremity, tremors

Labs Prior to Transfer:

Extensive Infectious work-up: negative

CRP: 220 mg/L

ESR: 95 mm/hr

Ferritin: 805 ng/ml

ANA w/reflex: negative

RF: <10 IU/ml

CCP: < 20 U/ml

ACE level: 34 U/L

Vit D 1,25-DI-OH: 5.5 pg/ml L

Uric acid: 6 mg/dl

Imaging at OSH prior to transfer:

Xrays hands, feet, SI joints: normal

MRI/MRA brain: normal

CT head/neck: left sided parotid mass

CT left elbow: soft tissue swelling

CT abdomen/pelvis: no acute abdominal process noted

Patient had a left ankle arthrocentesis performed by the rheumatology service Day 1 at our hospital. Please refer to the images of the synovial fluid and the crystal analysis

Laboratory assessment of synovial fluid:

Cell count: too thick, could not assess.

Viscosity: Markedly Decreased

Crystals: None seen by lab, personal review of synovial fluid revealed a lipid crystal

After visualizing the lipid crystal we added lipase, amylase, and several additional chemistries to the synovial fluid and the serum:

Lipase serum: 22,891 U/L

Amylase serum: 2,655 U/L

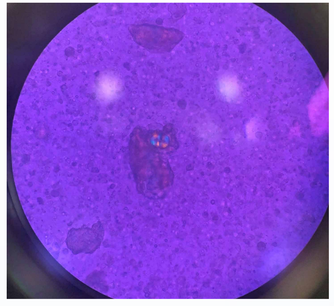
Lipase synovial fluid: 316 U/L

Glucose synovial fluid: <1 U/L

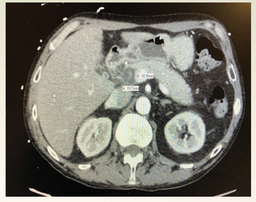
Amylase synovial fluid: 719 U/L

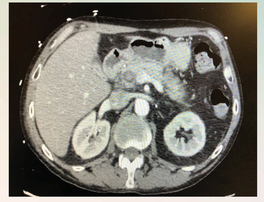
Diagnosis: Chronic Pancreatitis Presenting with Polyarticular Intraosseous Fat Necrosis

Personal analysis of synovial fluid: Lipid crystals



Imaging





Repeat CT abdomen/pelvis: Nonocclusive thrombus in the main portal vein. Hypodense mass like collection with central hyperdensity along the uncinate process of the pancreas could represent pseudocyst with hemorrhagic component. Continued follow up suggested. Uncinate calcifications consistent with changes of chronic pancreatitis.

Management

- Pancreatitis left untreated can result in death, thus recognition of the diagnosis is paramount.
- Our patient received aggressive IV hydration with Normal Saline, and meropenum 1 gram IV tid x 7 days while inpatient due to initial concerns for infection and pancreatic necrosis.
- Patient was placed on a tapering dose of prednisone with significant improvement in joint symptoms.
- Repeat CT A/P showed resolution of inflammatory component and persistence of cyst with resolution of hyperdense hemorrhagic component.
- Our patient made a full recovery, and was able to be safely discharged to rehab.
- Patient to follow up with GI for EUS of pancreatic cyst and with rheumatology or his polyarthritis.

Discussion

- Release of pancreatic enzymes thought to lead to lipolysis of synovial membrane leading to acute arthritis
- Most cases of pancreatitis with polyarticular intraosseous fat necrosis are seen in men in the 5th decade
- MCPs, knees, ankles most common joints involved
- Patients may not experience abdominal symptoms, as in our case
- Seen most commonly in alcohol induced chronic pancreatitis
- Other cases in the literature have associated with pancreatitis of biliary origin, ischemia, pancreatic trauma, and exocrine and endocrine tumors of the pancreas
- Can be associated with dermatitis of the lower extremity, as seen with our patient. Rash can migrate to the arms and trunk.

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No disclosures

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