



Panniculitis and Pancreatitis: Inflammation and Necrotic Mechanisms in a Patient with Alcohol Use Disorder and Alarming Suspicion for Malignant Process



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Background

- Panniculitis is an inflammatory process localized to subcutaneous tissue, with etiologies including infection, malignancy, external insults, enzymatic destructive processes, and inflammatory disorders
- Here, we present a rare case of a patient with chronic pancreatitis with features concerning for myeloma given lytic lesions, who was found to have incidental panniculitis

Case Description/Methods

A 53 YO M with PMH of T2DM, HTN, DLD, hypothyroidism, MDD, alcohol use disorder, and chronic pancreatitis presented w/ lower abdominal pain

- Within the past 2 years, the patient had 2 prior episodes of acute pancreatitis and endorsed daily ETOH consumption
- Computed tomography (CT) of the abdomen and pelvis demonstrated acute diverticulitis of the descending colon with associated abscess, liver parenchymal disease, chronic pancreatitis, and an incidental finding of lytic pelvic lesions and a posterior left iliac bone/left acetabular cyst sclerotic lesion
- Workup for multiple myeloma was significant for elevated B2 microglobulin, elevated free lambda light chains, normal free lambda light chains, and absence of M spike
- A skeletal survey demonstrated lytic lesions within bilateral pelvic bones versus overlying bowel gas and a cortically based sclerotic lesion along the distal femur, with chronic rib fracture of the right 11th posterior rib
- The patient's osteolytic pelvic lesions were considered to be panniculitis 2/2 pancreatitis, and much less likely secondary to a malignant process
- The patient was treated with Piperacillin-Tazobactam for diverticular abscess and intravenous fluids for his pancreatitis and was discharged home following clinical improvement and resolution of his diverticular abscess on repeat imaging.

References/Acknowledgements

- Langenhan R, Reimers N, Probst A. Osteomyelitis: A rare complication of pancreatitis and PPP-syndrome. Joint Bone Spine. 2016 Mar;83(2):221-4.

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Results

Test Name	Reading	Reference Range
Kappa/Lambda Ratio	1.55	0.26-1.65
M-Spike	Not observed	Not observed
Protein 24h Calc	<145	30-150
Protein Total Urine	<4.0	<4.0
Ur Free Kappa Lt Chains	6.20	0.63-113.79
Ur Free Lambda Lt Chains	0.96	0.47-11.77
Albumin Ur	100	--
Protein Total	6.8	6.0-8.5
UIBC	254	111-343
Hb A	93.6	96.4-98.8
Hb A2	5.7	1.8-3.2
Hb F	0.7	0.0-2.0
Hb S	0.0	0.0
IgA	283	90-386
IgG	849	603-1613
IgM	89	20-172
B2 Microglobulin	3.8	0.6-2.4

Table 1. Laboratory studies including negative MM workup

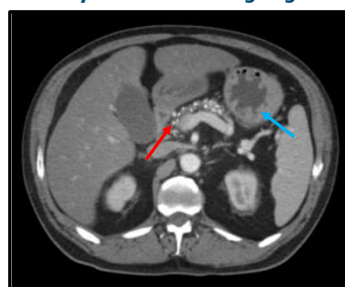


Fig 1. CT A/P notable for acute diverticulitis of descending colon w/ abscess (blue arrow), liver parenchymal dz, chronic pancreatitis (red arrow), incidental lytic lesions

Results (continued)

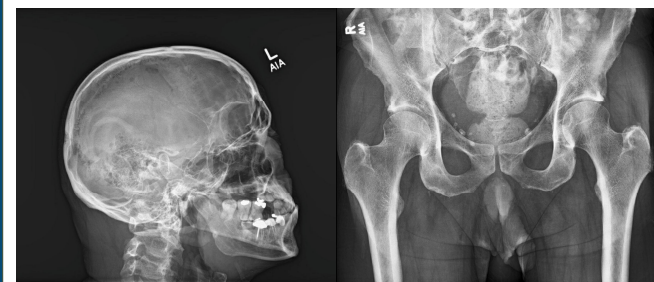


Figure 2. Skeletal Survey with (left image) notable for 6mm lytic lesion within the bony calvarium on the lateral view and (right image) notable for questionable redemonstration of lytic lesions within the bilateral pelvic bones versus overlying bowel gas as well as cortically based sclerotic lesion along the lateral distal femur that is nonspecific.

Discussion

- The incidence of panniculitis manifesting as necrosis of subcutaneous fat tissue associated with pancreatic dz is ~2-3%, which may encompass associated periartthritis with bone necrosis and panniculitis (PPP syndrome) [1]
- PPP syndrome is considered to derive from the systemic activity of enzymes w/i the pancreas, which leads to disturbances w/i the microcirculatory system, & fat necrosis of medullary bone marrow; however, exact pathophysiology remains unknown [1]
- Our patient provided an interesting clinical picture given his ETOH use disorder, & lytic lesions which lead the team initially towards a malignant etiology of panniculitis such as myeloma; however, given his negative studies, it was presumed his panniculitis was derived from his chronic pancreatitis
- Overall, additional literature is warranted regarding the extensive workup of lytic bone lesions that present with patients who have acute vs chronic pancreatitis.