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Case Report

Pancreatitis, Panniculitis, Polyarthritis- A Rare Triad!

Case Report

A 51 year - old – male, consuming alcohol almost 180 ml/day for 20 years was admitted elsewhere with vomiting for 10 days, reduced urine output for 5 days and severe epigastric pain radiating to back for 3 days. In the next 3 days he developed fever alongside with pain, swelling and redness of the lower extremities, jaundice and breathlessness on exertion.

On examination, he was conscious, oriented, and febrile (100 F). There was mild icterus with bilateral calf muscle tenderness. He had tachycardia (120 /min), hypotension (BP 90/56 mm Hg), tachypnea (RR-32/min) and mild hypoxia (SpO2 on room air 94 %). Examination of abdomen was normal; there was no tenderness.

Investigations : Hemoglobin - 13.4gm/dL , Total white cell count – 28270 cells/cu. mm , Platelet count- 422000 cells/cu.mm , Blood urea – 92mg/dL, Serum Creatinine - 1.7mg/dL , Total Bilirubin - 10.9mg/dL , Direct Bilirubin - 7.19 mg/dL, Aspartate transaminase – 63 U/L , Alanine transaminase - 31 U/L, Alkaline phosphatase – 193U/L , Serum Albumin - 2.3gm/dL , INR - 1.35 , Serum Lipase – 2383 U/L , Serum amylase – 379 U/L .Chest x-ray showed bilateral minimal pleural effusion. Venous Doppler study of both lower limbs was normal. CECT abdomen on day 5 showed bulky pancreas with peripancreatic fat stranding, minimal bilateral pleural effusion and mild hepatomegaly (Figure 1). Patient was managed in the intensive care unit with intravenous fluids, parenteral meropenem 1 gram three times a day and noradrenaline infusion at the rate of 1 mg / hour. He was given oxygen at 2 liters per minute using facemask. He responded well to treatment and was started on oral feeds within 48 hours. Dermatologist opined the possibility of lipodermosclerosis in the extremities in view of the brownish discolouration and induration of the skin (Figure 2) .On biopsy, there was focal fat necrosis with eosinophilic deposits of partially hydrolyzed fat, with septal thickening, fibrosis, chronic inflammation and lobulation of subcutaneous fat (Figure 3).

On day 10, patient developed arthritis of left shoulder joint and both knee joints, restricting his mobility. Possibility of pancreatitis, panniculitis and polyarthritis syndrome was considered and he was started on a small tapering dose of prednisolone (10 mg/day). He recovered in next few days. He tolerated normal feeds, with significant symptom relief of joint and leg pain at time of discharge.

Pancreatic panniculitis is an infrequent complication characterized by subcutaneous fat necrosis that affects 0.3-3% of patients across a range of different pancreatic disorders. Skin lesions are the presenting feature in about 40% of

Figure 1: CT scan showing pancreatitis.

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Figure 2: Skin involvement in our case- pigmentation, induration and asymmetrical distribution seen.

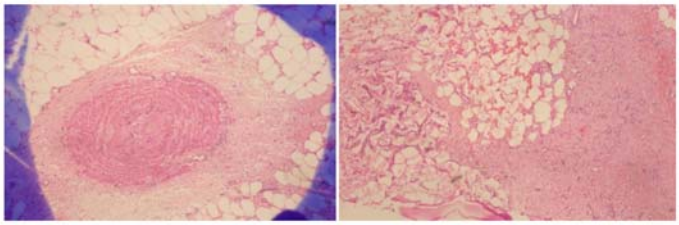

Figure 3: Skin biopsy showing pannicultis

pancreatic panniculitis and precede the abdominal symptoms by 1-7 months [1]. Clinically, they present with painful, tender, ill-defined, and erythematous to violaceous nodules that may undergo spontaneous ulceration and discharge of an oily brown, viscous material resulting from liquefactive necrosis of adipocytes. These lesions usually involve the lower extremities although they may also appear on the buttocks, trunk, and arms and scalp [2].

The exact pathogenesis of fat necrosis is not clear, but multiple factors may be involved [3]. Pancreatic lipase and amylase are known to have a pathogenic role in causing subcutaneous fat necrosis leading to panniculitis [4]. In addition to the skin, fat necrosis has been documented in peri-articular, abdominal and intramedullary adipose tissue. Arthritis can be symmetrical or asymmetrical [1] and can be oligo, mono or polyarthritis [5]. Arthralgia (or arthritis) is listed among the presenting symptoms of this triad in one-fourth of the cases [6-8]. Although metacarpophalangeals, knees and ankles are the most commonly affected sites [9,10], any joint can be involved, mimicking rheumatoid arthritis, gout and septic arthritis. Our patient did not have joinjt pain in the initial phase, however, he developed it later.

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