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Clinical Image

Chronic Granulomatous Inflammation of Bone

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Case Description

A 57-year-old male, known diabetic and hypertensive presented with history of generalized weakness, bone pains and significant weight loss (19kg in two months). Examination showed pallor with no lymphadenopathy or visceromegaly. Complete blood count showed pancytopenia (Haemoglobin: 9.0gm/dl, White blood cells: 2.8 x 10^9/L and platelets: 126 x 10^9/L). Bone marrow aspirate was a hypo-cellular specimen having scanty hematopoietic cells however, single histiocytic clump was observed. Touch imprints of bone biopsy showed presence of occasional giant multinucleated cell in addition to normal hematopoietic precursors. Haematoxylin and eosin stained sections of bone trephine biopsy revealed multiple granulomas composed of epitheloid cells, histiocytes, lymphocytes and multinucleated giant cells (Figures 1-3). Ziehl-Neelsen staining for Acid Fast Bacilli and Periodic acid-Schiff staining for fungus were negative.

Bone marrow granulomas can be seen in several conditions like tuberculosis, sarcoidosis, fungal infections and others [1,2]. Definitive diagnosis is often difficult as there are no specific histological features for underlying cause. In all cases however, special stains like Ziehl-Neelsen for acid fast

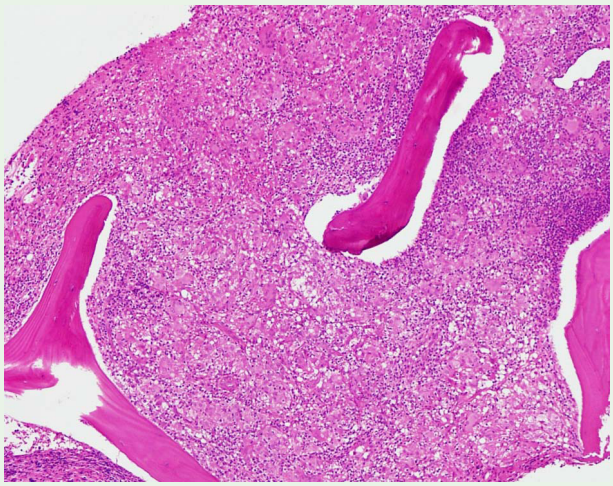

Figure 1: Haematoxylin and Eosin stained section of bone tissue showing chronic granulomatous inflammation at 10x.

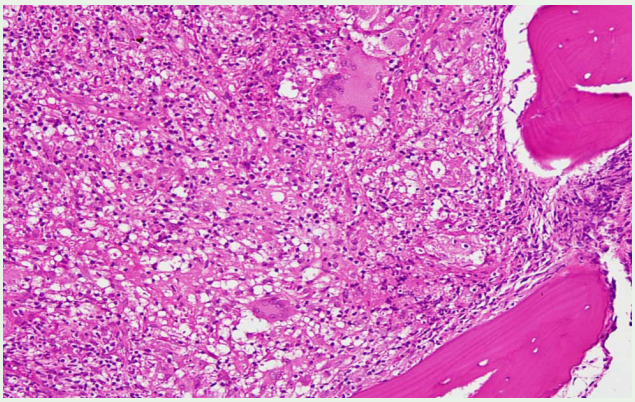

Figure 2: Haematoxylin and Eosin stained section of bone tissue showing chronic granulomatous inflammation at 20x.

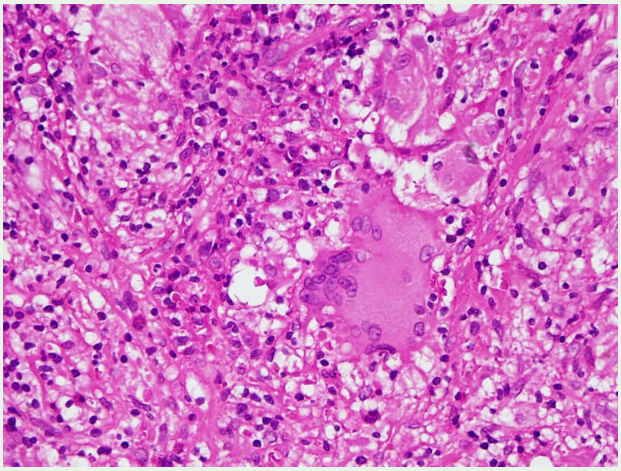

Figure 3: Haematoxylin and Eosin stained section of bone tissue showing a multinucleated giant cell at 100x.

bacilli and Periodic acid-Schiff stain for detection of fungus should be performed. Microbiological correlation in suspected cases for example bone marrow cultures for suspected organisms is always helpful in reaching the final diagnosis. In Pakistan, owing to increased prevalence of the disease, tuberculosis is usually the commonest cause of chronic granulomatous inflammation.

References

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