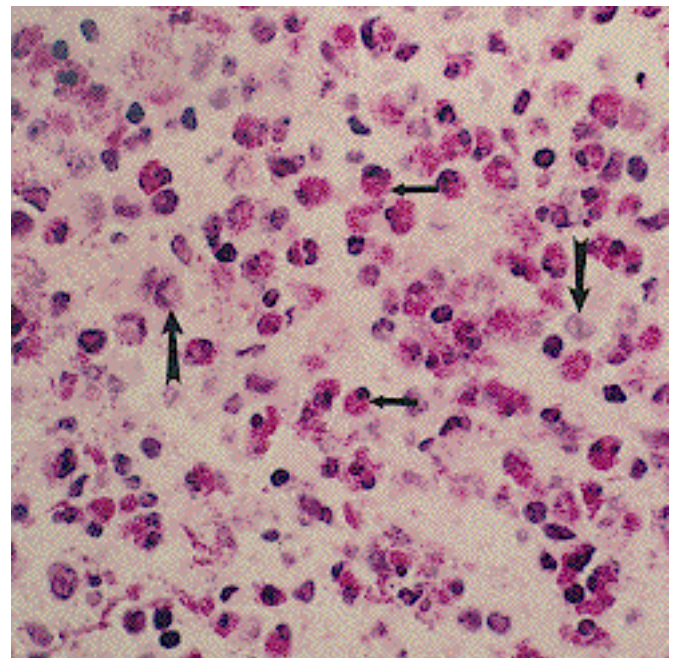


LANGERHANS CELL HISTIOCYTOSIS

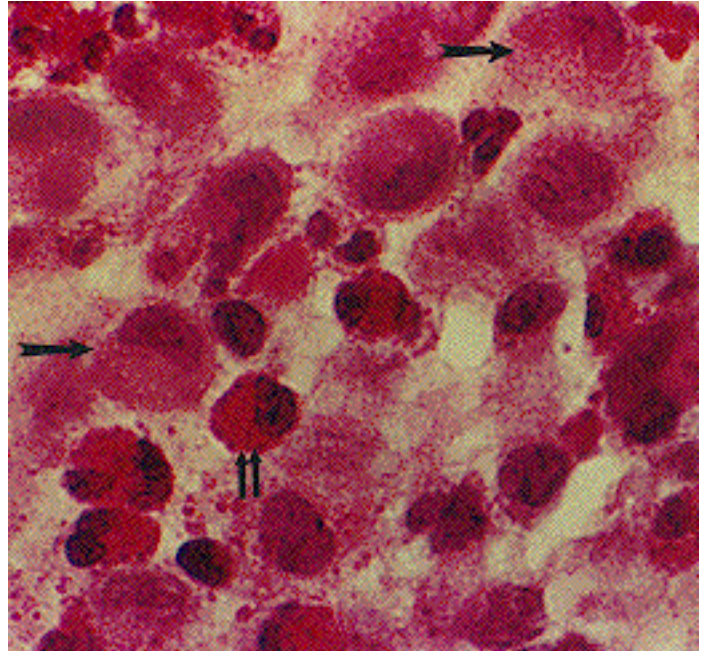
This is a histiocytic proliferation found in a single bone or in multiple bones with the temporal bone being a common site. The disorder belongs to a group of diseases collectively called Langerhans cell histiocytosis; other members of the group include Letterer-Siwe syndrome and Hand-Schuller-Christian disease (multifocal eosinophilic granuloma).

Microscopically, there are sheets of large Langerhans histiocytic cells with delicate vesicular chromatin, small nucleoli and frequently nuclei that are grooved or folded. The cytoplasm of these cells is abundant and pink and may contain lipid vacuoles. Giant cells may be present. Some of the histiocytes are distinctly foamy, the result of phagocytosis of lipid. Invariably there are admixed eosinophils, lymphocytes, plasma cells and neutrophils.

Eosinophilic granuloma. Small arrows indicate eosinophils and the large arrows Langerhans cell histiocytes, pale with lipid. Note that these histiocytes have folded irregular nuclei unlike conventional histiocytes which have rounded nuclei. There are also lymphocytes and plasma cells.



Eosinophilic granuloma, high power. Histiocytes (large arrows) with irregular (folded) nuclei some of which have partial nuclear grooves. Small double arrows indicate an eosinophil.



CLINICAL ASPECTS

The X-ray appearance in eosinophilic granuloma is rather characteristic with a sharply marginated punched-out lesion or lesions, often in the temporal bone. Simple surgical curettage may be adequate treatment with or without low dose irradiation treatment.