

- Skull and flat bones: skull (~50%), pelvis (23%)
- Femur: 17%
- Ribs: 8% (most common in adults)
- Humerus: 7%
- Mandible: 7%
- Spine

There are comparatively lesser studies outlining the frequency of this lesion with involvement of the spine in adults and even lesser in the elderly. Less than fifty cases have been described in the literature. The lesions may be asymptomatic and discovered as an incidental radiographic finding in children but more often in adults these lesions present with symptoms of persistent pain and deficit. There is an association between LCH and T Lymphoblastic leukemia, with the leukemia associated T cell receptor gene rearrangement present in the LCH cells; this has been considered a transdifferentiation phenomenon.

The key feature is the identification of the LCH cells. These are oval, about 10-15 μm in size, recognized by their grooved, folded, indented or lobulated nuclei with fine chromatin, inconspicuous nucleoli and thin nuclear membranes. Nuclear atypia is minimal, but mitotic activity is variable and can be high without atypical form. The cytoplasm is moderately abundant and slightly eosinophilic. Unlike epidermal Langerhans cells or dermal perivascular cells, LCH cells are oval in shape and devoid of dendritic cell processes. The characteristic milieu includes a variable number of eosinophils, histiocytes (both multinucleated LCH forms and osteoclast-type cells specially in bone), neutrophils and small lymphocytes. Plasma cells are usually sparse. Occasionally, eosinophilic abscesses with central necrosis, rich in Charcot-Leyden crystals, may be found. In early lesions, the LCH cell predominates along with eosinophils and neutrophils. In late lesions, the LCH cells are decreased in number, with increased foamy macrophages and fibrosis.

The ultrastructural hallmark is the cytoplasmic Birbeck granules whose presence can be confirmed by langerin expression.

In this case, while the presence of large cells simulated the appearance of Reed Sternberg type cells, the absence of the characteristic marker expression helped to rule out this differential. Similar to LCH, Hodgkins lymphoma of spine is also well documented and per se an even rarer disease. Very few studies have reported concurrent occurrence of Hodgkins lymphoma and LCH in spine. The knowledge of this relatively rare presentation of the disease is important for a conclusive diagnosis and standard therapeutic management.