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Imaging Features of Hepatobiliary Histiocytosis

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Abstract : Purpose: Langerhans' cell histiocytosis (LCH) is not uncommon pathology that implies aberrant proliferation of a specific dendritic (Langerhans) cell. These atypical but mature cells of monoclonal origin can infiltrate many sites of the body and may occur as localized lesions or as widespread systemic disease. Liver is one of the uncommon sites of affection. The twofold objective of this study is to illustrate the radiological presentation of this disease, and to compare these results with previously reported series. Methods and Materials: Between 2007 and 2012, 150 patients with biopsy-proven LCH were treated in our hospital, a paediatric cancer tertiary care center. A retrospective review of radiographic images and reports was performed. There were 33 patients with liver affection are stratified. All patients underwent imaging studies, mostly US and CT. A chart review was performed to obtain demographic, clinical and radiological data. They were analyzed and compared to other published series. Results: Retrospective assessment of 150 patients with LCH was performed, among them 33 patients were identified who had liver involvement. All these patients developed multisystemic disease; They were 12 females and 21 males with (n= 32), seven of them had marked hepatomegaly. Diffuse hypodense liver parenchyma was encountered in five cases, the periportal location has a certain predilection in cases of focal affection where three cases has a hypodense periportal soft tissue sheets, one of them associated with dilated biliary radicals, only one case has multiple focal lesions unrelated to portal tracts. On follow up of the patients, two cases show abnormal morphology of liver with bossy outline. Conclusion: LCH is a not infrequent disease. A high-index suspicion should be raised in the context of diagnosis of liver affection. A biopsy is recommended in the presence of radiological suspicion. Chemotherapy is the preferred therapeutic modality. Liver histiocytosis are not disease specific features but should be interpreted in conjunction with the clinical history and the results of biopsy. Clinical Relevance/Application: Radiologist should be aware of different patterns of hepatobiliary histiocytosis, Thus early diagnosis and proper management of patient can be conducted.

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