

M-01 14:00 – 14:10

MR imaging findings of Langerhans cell histiocytosis in skull.

김정은, 임명관, 편해욱, 박선원, 서창해
인하대학교 의과대학 영상의학과

Purpose : To evaluate the characteristic MR imaging findings of Langerhans cell histiocytosis (LCH) in skull and to compare them with simple radiography and CT.

Materials and Methods : A total of 11 lesions in 9 patients (Age range; 5-42 years, Mean age;18, M:F=1:8) with Langerhans cell histiocytosis in skull were included in our study. Nine lesions were histologically confirmed by surgery or fine needle aspiration biopsy. All patients performed with MRI and simple radiography, and CT scans were done in 7 patients. Two experienced neuroradiologists reviewed the radiological examinations independently with attention to location, size, shape and nature of the lesions in the skull.

Results : The lesions were distributed in all of the skulls without predilection site. On MR images, the masses were shown as well-enhancing lesions mainly in diploic spaces (11/11) with extension to scalp (10/11) and dura mater (10/11). Dural thickening and enhancement were seen in 10 lesions. All of the lesions in LCH were seen as punched out osteolytic masses in simple radiography, and scalp and dural extension could not be seen. On CT scans, the lesions were presented as soft tissue masses involving diploic space and scalp extension were also well visualized. Although bony erosion or destruction was more clearly seen on CT rather than those of MRI, enhancing soft tissue masses and dural extension were not well visualized on CT . The size of the lesions were larger on MRI than that of simple X-ray or CT.

Conclusions : Characteristic MR findings in patients with LCH are soft tissue mass in diploic space with extension to dura and scalp, and MRI would be better imaging modality than simple radiography or CT .