Whole Body MRI In Paediatric Oncology: Pictorial Review

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Background: Whole body MRI (WB MRI) has been increasingly used in paediatric population due to its robust soft tissue resolution and with no radiation exposure risk. The latter is very much relevant in cases of paediatric oncology since repeated imaging is always important for follow-up at end of treatment. Therefore, our objective is to discuss the value of WB MRI in paediatric oncology in pictorial review.

Materials and Methods: We studied WB MRI performed for various cases of paediatric oncology including lymphoma, neuroblastoma and Langerhans Histiocytosis (LCH). We performed the WB MRI using coronal STIR sequences whereby the technique will also be discussed.

Results: The cases will demonstrate different findings that can be found in WB MRI which includes abnormal lymph nodes, focal mass lesion in the organ and bony abnormalities among others. Cases that have follow-up WB MRI will also be presented for better understanding on the value of WB MRI in follow-up cases.

Conclusion: This review is hoped to be an interesting guide for those who want to be familiar with the method and also adds special attention to technical aspects together with various findings that can be seen in paediatric oncology population. Particularly in paediatrics, MRI should be considered as comparable as PET CT in the assessment of abnormal morphology in the absence of ionizing radiation.