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Teaching Neuro*Images*: MRI "target sign" and neurofibromatosis type 1

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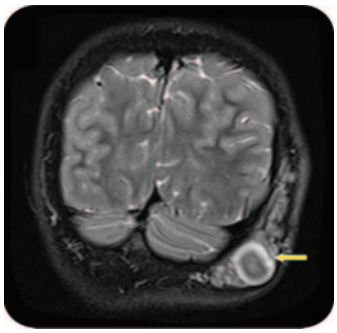
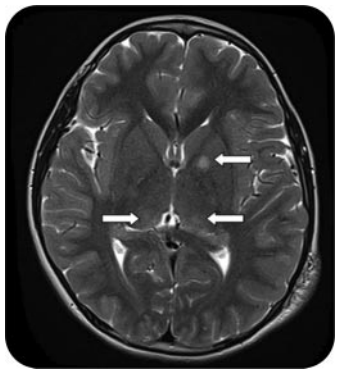
Figure 1 MRI brain (coronal T2-weighted)



Subcutaneous mass over the left occipito-temporal region with multiple serpiginous lesions and targetoid appearance manifested with peripheral bright and central dark signal (yellow arrow) suggestive of plexiform neurofibroma.

Figure 2 MRI brain (axial T2-weighted)



Hyperintense signals in the left globus pallidus and bilateral posterior aspects of the thalami (white arrows) characteristic of unidentified bright objects seen in neurofibromatosis type 1.

A 9-year-old girl presented with a firm occipital swelling. She had multiple café-au-lait lesions without other clinical features or family history of neurofibromatosis type 1 (NF1). MRI showed subcutaneous soft tissue mass in the left occipito-temporal region with "target sign" suggestive of plexiform neurofibroma (figure 1). There were supra and infratentorial T2-weighted hyperintense lesions, so-called unidentified bright objects characteristic of NF1 (figure 2). MRI target sign helped to confirm plexiform neurofibroma which is one of the clinical criteria for the diagnosis of NF1.[1] Target sign in plexiform neurofibroma is due to central fibrocollagenous core (T2-hypointense) surrounded by myxomatous tissue (T2-hyperintense).[2]

AUTHOR CONTRIBUTIONS

Dr. Partha S. Ghosh collected and organized the data and wrote the first manuscript (including the first draft). Dr. Debabrata Ghosh conceptualized the study and revised the manuscript at all stages.

REFERENCES

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2. Banks KP. The target sign: extremity. Radiology 2005; 234:899–900.

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Disclosure: The authors report no disclosures.

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Neurology 2012;78;e63
DOI 10.1212/WNL.0b013e318248df63