Hypothalamic Hope Hamartomas

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21 May 2021

Subject: MRI Protocol - Hypothalamic Hamartoma

To whom it may concern,

On behalf of the Medical Advisory Board for Hope for Hypothalamic Hamartomas, I would like to share with you the imaging protocol we believe is well suited to capture a suspected hypothalamic hamartoma (HH).

An appropriate MRI is perhaps the most crucial diagnostic tool for the detection of HH. While many Epilepsy Centers have standard protocols in place for incoming patients with possible epilepsy, the Hope for HH Medical Advisory Board recommends this protocol for optimal diagnostic accuracy.

HH MRI Protocol

- 3D T1W SPGR, axial 0.9 mm isotropic voxels
- Sag T1W – min TE; 3mm slice, 0.5mm gap; FOV 20cm
- Sag T2W(FSE) – 2mm slice no gap; FOV 20cm
- Cor T2W(FSE) – 2mm slice no gap; FOV 16cm
- Cor T1W – 3D SPGR; 2mm slice; FOV 24cm – recon for axial
- Axial T2W (FSE) – routine brain

This MRI sequence is designed to minimize the risk of not capturing very small hypothalamic hamartomas that can be in the 2 mm range and was approved by the panel of neuroimaging experts, including nationally recognized neuroradiologists, neurologists, and neurosurgeons specialized in hypothalamic hamartoma care and research, serving the Hope for Hypothalamic MAB.

For initial imaging evaluation, contrast may be necessary to exclude other lesions types. T2-weighted sagittal and coronal images are essential sequences for lesion characterization. Whole brain cortical evaluation is needed to exclude other causes of seizure activity for initial diagnosis.

Warm regards,

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