

What is all This **FUS** About

MRI guided FUS Thalamotomy - First report from the Indian subcontinent of 16 cases with tremors.

Background and Aims :

Stereotactic lesioning of the Ventralis inter medialis of the thalamus has been in vogue for many decades now. Newer targets have been identified for various neurological diseases. Safe and effective lesioning of these targets, has finally been achieved with the use of MRgFUS. The first MRgFUS randomized trial for essential tremors was reported in 2016, Herein we report our initial experience in 16 cases using MRgFUS. This is the first case series report from the Indian subcontinent.

Initial Report On 16 Course Active Cases First From The



16 consecutive cases of tremor - 6 Essential Tremor (ET) 1 case of dystonic tremor, 2 cases of spinocerebellar ataxia type 12, and 7 cases of Tremor Dominant Parkinson's Disease(TDPD) are reported. All these cases were subjected to VIM Thalamotomy using MRgFUS. The VO (ventralis oralis) nucleus was included in Two cases of TDPD and one case of hand dystonia with tremors. In two cases of Parkinson's disease lesion was placed in the Forel's H1 field also in addition to VIM

Results: Tremor had abated in all the patients significantly with a marked reduction in CRS score. The 4 initial TDPD cases at the end of 2 months, had a marked reduction in UPDRS score. All the cases of essential tremors were resistant to all known medications. In all cases were administered dexamethasone 4mg was twice daily for 3 to 5 days. In 3 of these cases, a prolonged course of dexamethasone was administered for a period of 1 month. Mild ataxia was reported in all 16 patients. Dysarthria was reported in 10 out of 16 patients. Mild limb weakness and mouth deviation were noted in

one patient which resolved in 1 month. Another patient reported subjective weakness in the right upper limb and lower limb, though there was no weakness on clinical examination. Two patients reported severe burning pain in the back during the procedure in which the target was moved 1mm anteriorly. One patient with TDPD reported improvement in the voice following the procedure. These excellent results prove the utility of this treatment modality.

