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C0256 - FOCUSED ULTRASOUND THALAMOTOMY RESULTS IN 42 CONSECUTIVE PATIENTS WITH REFRACTORY TREMOR. SINGLE CENTER EXPERIENCE

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Resumen

Objectives: The efficacy of focused ultrasound thalamotomy with magnetic resonance imaging guidance (MRIgFUS) for the treatment of essential tremor has been supported by one randomized trial and several uncontrolled trials. To date, approximately 500 patients have underwent this procedure worldwide. We present a descriptive series of 42 consecutive patients treated at a single center with MRgFUS Thalamotomy to control their drug-refractory tremors.

Methods: From March 2015 to November 2016, forty-two consecutive patients suffering from chronic, drug-refractory tremor (DRT) were treated with unilateral MRgFUS Thalamotomy. The target was the Ventral intermediate (Vim) nucleus contralateral to the dominant hand side (two left-handed). Primary relief assessment indicator was the Essential Tremor Rating Scale (Fahn, Tolosa, and Marin) (ETRS) taken at follow-up (1 to 18 months) with accent on the hand function subscores and handwriting. We also gathered detailed recording of the procedure steps and of adverse effects, immediate and along follow-up.

Results: The mean ETRS relief at maximum follow-up available was 78% (57-93). The mean number of sonications was 17.3 (11-27), with a mean maximal temperature achieved at target of 57.9 Celsius ((53-64). Neurological exploration at 3 months showed improvement not only in arm tremor but also in coexisting tremors of the head, chin, and leg, although to a lesser degree. The most frequent adverse effects were equilibrium and gait disturbances. Such adverse effects were transient, and none of our patients had any adverse event that lasted for more than 3 months. Admission mean time was of 16.8 hours after the procedure.

Conclusions: The preliminary results in our initial series show the reproducibility of previous trials suggesting that MRIgFUS Thalamotomy reduced hand tremor and improved the quality of life in patients with DRT with a remarkable safety profile. Side effects included sensory and gait disturbances, which were transient in all cases. No serious complications were encountered. Further studies will be needed to validate the long term effect of the treatment.