

2nd International Conference on
**NEUROSCIENCE AND
NEUROLOGICAL DISORDERS**

April 11-12, 2019 | Barcelona, Spain

Nelson Quintanal Cordero, J Neurol Neurorehabil Res 2019, Volume 4

**ABLATIVE FUNCTIONAL NEUROSURGERY IN THE TREATMENT OF MOVEMENT
DISORDERS: CIREN EXPERIENCE, CUBA**

Nelson Quintanal Cordero

International Center of Neurological Restoration, Cuba

Introduction: Effectiveness and safety of ablative surgery for movement disorders depend, among others, on the location of lesions in the nuclear regions of interest and the volume of these lesions.

Material and Methods: We describe the methods of radiofrequency ablation that are developed in the CIREN in the approach to the subthalamic nucleus (STN), internal globus pallidus (GPi) and ventralis intermedius nucleus (VIM) of the thalamus, performed on patients diagnosed with Parkinson's disease (PD), dystonia and essential tremor. These methods efficacy and safety were evaluated by clinical findings and by checking post-operative lesions (location, shape and dimensions) by magnetic resonance images (MRI).

Results: A total of 1103 ablative surgeries were performed in 1015 patients over a twenty- year period, divided into 425 subthalamotomies, 549 pallidotomies and 129 VIM thalamotomies. The anatomical location method and electrophysiological confirmation were sufficient to perform the procedure. The subthalamic nucleus lesion was effective in controlling the cardinal manifestations of PD with predominantly contralateral and axial effects. The pallidotomy in PD was effective mainly for the control of rigidity and dyskinesias. Bilateral Pallidotomy in a single surgical time is effective in patients with generalized dystonia. VIM thalamotomy has good effect in the treatment of essential tremor and in PD with predominance of tremor.

BIOGRAPHY

Nelson Quintanal Cordero is a head and board member of neurosurgery at International Center of Neurological Restoration. (CIREN) Havana, Cuba.

nquintanal@neuro.ciren.cu



Note: