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Non motor symptoms in Parkinson's disease patients after deep brain stimulation for Parkinson's disease: Distribution of frequency and directional of the electrical field in monopolar setting

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Non motor symptoms in Parkinson's disease (depression, fatigue, pain and others) represent important causes of disability in most of the PD patients. In fact, some advanced PD patients after an invasive therapy such as Deep brain Stimulation (DBS) or Duodopa show persistency or worsening of non motor symptoms even the improvement in the cardinal symptoms of PD.

Electrical stimulation in the surrounding subthalamic areas such as Forel field or zona incerta can improve non motor symptoms according to our experience and the experience of other authors.

With the advancement of the new technology and new devices for DBS subthalamic for PD patients (octopolar leads, multicurrent distribution, directional leads, neuronavigators and MRI) the possibilities to improve the non motor symptoms of PD increase substantially.

We show our experience with this series of 25 advanced PD patients who underwent to DBS sub thalamus who showed a remarkable improvement in the non motor symptoms (87%) and also they showed motor symptom improvement reflected in the motor fluctuations diary (75%), dyskinesias scale (82%) and a drug reduction around 62%. We show in this follow up the advantage of the new technology for DBS in order to improve not only motor but non motor symptoms with the octopolar, multicurrent, directional leads.

Biography

Gabriel Salazar is a neurologist PhD in neuroscience. He is the head of the department of neurology of the Terrassa Hospital and also head of the Barcelona Parkinson Institute. He works continuously in the improvement of movement disorders surgery and other advanced therapy in Europe, his PD surgery programme count with more than 400 PD surgical procedures in the last 10 years. He published his articles in the field of movement disorders and general neurology

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