INTEREST OF STEREOTACTIC ATLASSES IN FUNCTIONAL NEUROSURGERY

Philippe Cornu MD, PhD

Chairman Department of Neurosurgery and Neuro-Sensorial Surgical Pole
University Hospital of La Pitié-Salpêtrière
School of Medicine Sorbonne University
Paris, France

Since its introduction in our clinical practice twenty years ago, deep brain stimulation (DBS) can be considered as a major advanced therapy for the neurosurgical management in different indications. We all know that a good surgical outcome is in relation with a careful clinical patient’s selection associated with a good placement of the electrode contacts. In Paris, we have developed like others our own surgical technique and a 3D deformable atlas of the basal ganglia that can be merged on a patient pre-operative stereotactic MRI, initially during planification and after during the post-operative evaluation of the surgical treatment. Throughout our experience and a careful analysis of our data we can draw some conclusions on the interest of using a reliable tool for the surgical design and quality control of these operations.