**Abstract**

During the past 2 decades, deep brain stimulation (DBS) took over the position of radiofrequency (RF) lesioning of thalamic or pallidal targets for control of movement disorders. Superiority of DBS over RF lesioning is widely accepted, and most neurosurgeons even regard RF lesioning to be old fashioned and dangerous. Such concepts emerged from the data of old stereotactic operations with ventriculography and without computerized planning. Hardware-related complications are not negligible in long-term DBS therapy, and DBS only controls the symptoms. Living with an implanted device is also a burden for patients. With modern stereotactic techniques, RF lesioning is safe and effective. Indication of RF lesioning includes various types of tremor, focal hand dystonia, and even generalized or segmental dystonias. Neurosurgeons armed with both the procedures can choose the best treatment modality for patients.