

R. Bouttelgier^{1,2}, F. Ververken¹, S. Vandamme¹, W. Maenhoudt¹, S. Du Four¹, J. Van Lerbeirghe¹, D. Vanhauwaert¹, O. Van Damme¹

(1) Department of Neurosurgery, AZ Delta Roeselare-Menen-Torhout, Belgium; (2) Department of Neurosurgery, UZ Gent, Belgium

Introduction

Essential tremor (ET) is a common movement disorder with a prevalence of 5-6%. When the best medical treatment does not provide adequate tremor suppression, deep brain stimulation of the nucleus ventralis intermedius (VIM-DBS) is considered a safe and effective treatment. However, ventriculomegaly, caused by idiopathic normal pressure hydrocephalus (iNPH), can provide some targeting difficulties. We present the case of a 76-year-old female with disabling bilateral essential tremor despite best medical treatment (66 points on the Fahn-Tolosa-Marin scale). Pre-operative imaging displayed a supratentorial ventriculomegaly with an Evans index of 0,39. No clinical findings compatible with the Hakim-Adams triad were found at the time.

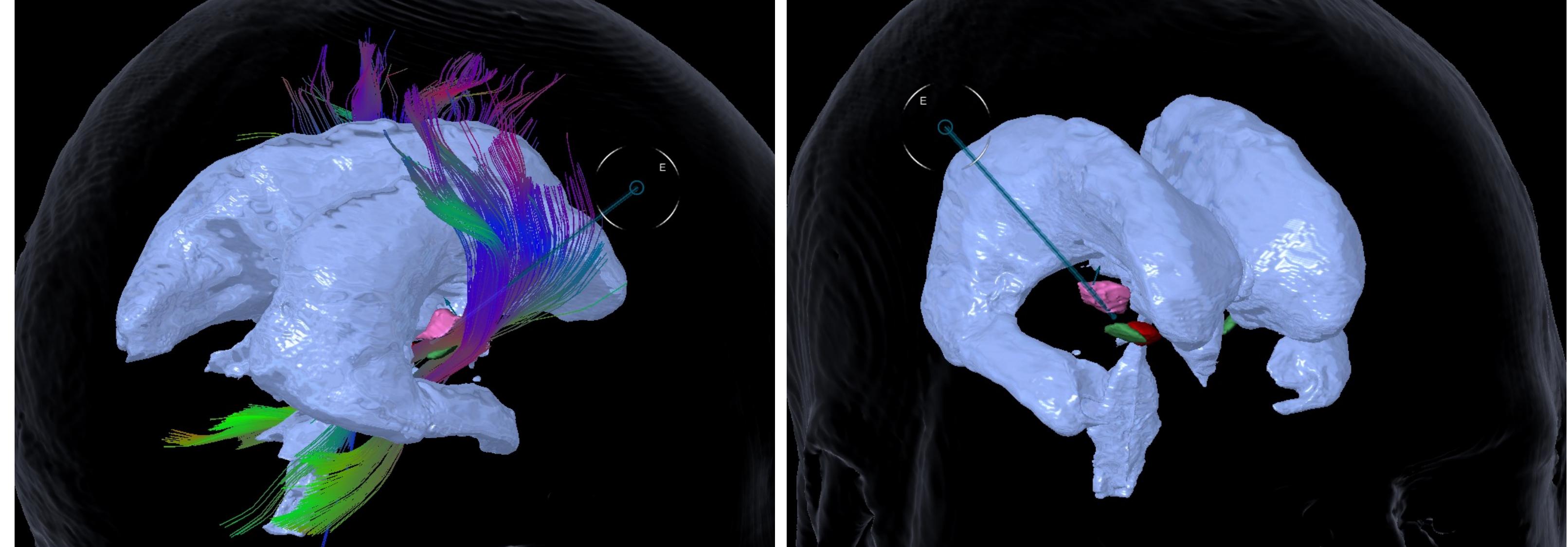


Figure 1. 3D Pre-operative planning of the VIM-DBS trajectory

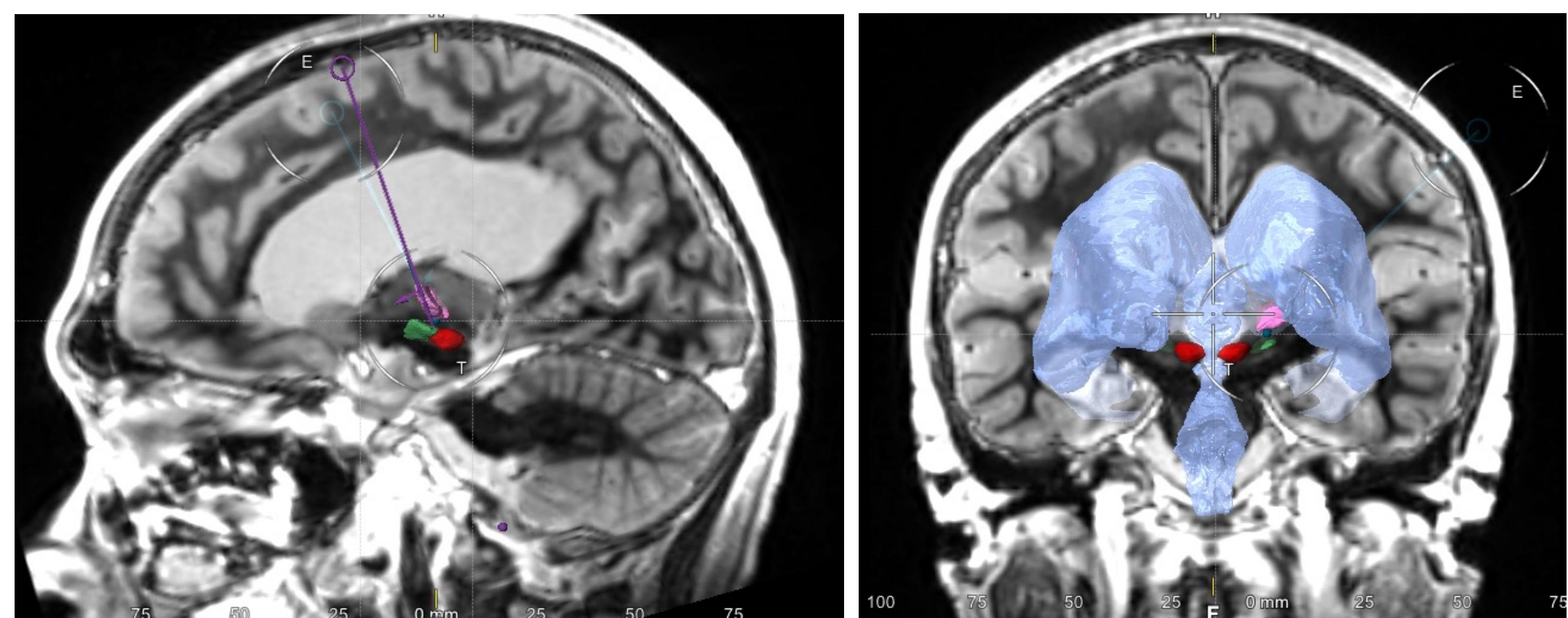


Figure 2. Pre-operative planning of the trajectory as depicted in sagittal and coronal FGATIR MRI

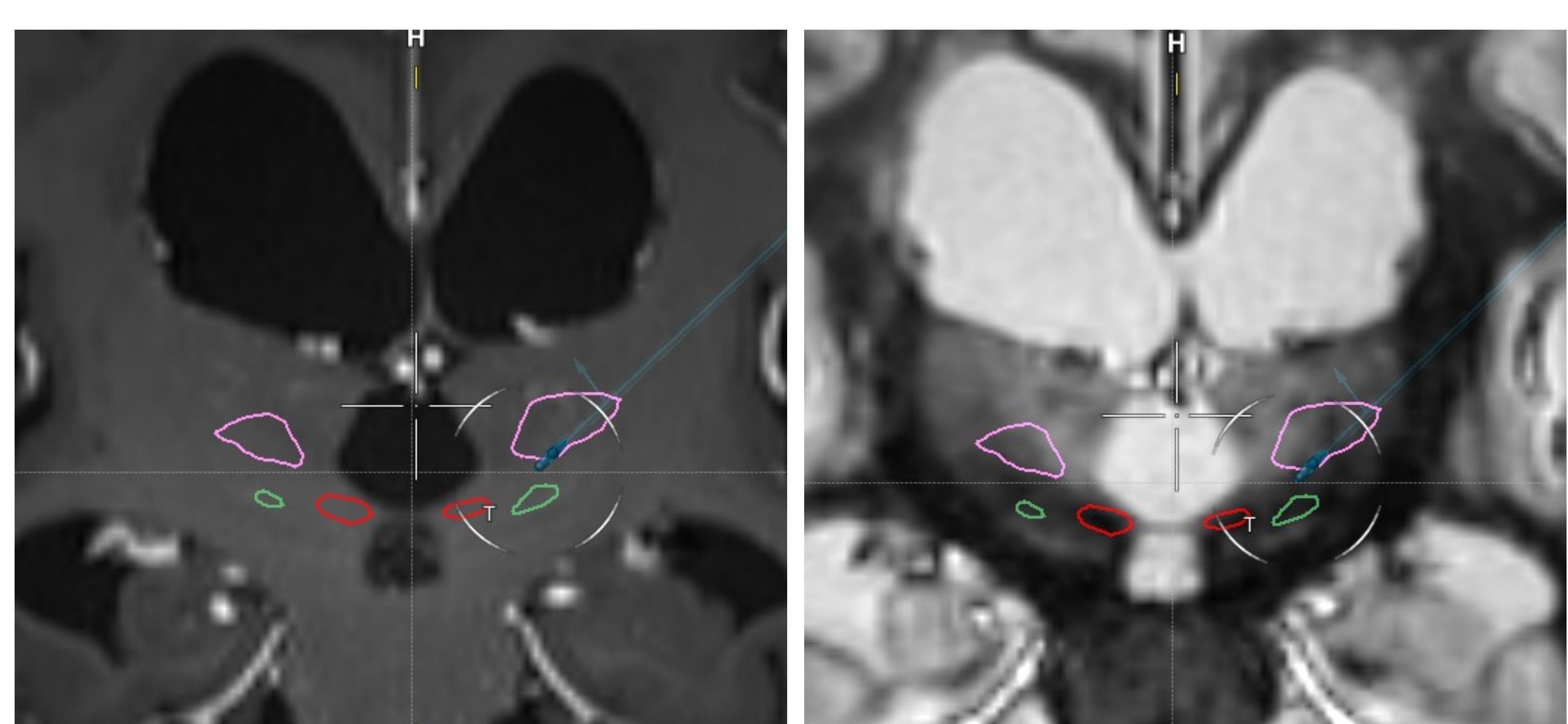


Figure 3. Close-up view of the VIM target in relation to the ventricles as depicted in coronal T1 and FGATIR MRI

Conclusion

Although VIM-DBS in ET patients with ventriculomegaly is a challenge, it should be considered for therapy-refractory patients with disabling symptoms.