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O-ONC-35 - Atrium Ganglioglioma - surgical and anatomical video presentation

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Resumen

Objectives: Gangliogliomas are usually benign tumours affecting mainly children and young adults, most frequently located in the temporal lobes. Epilepsy is one of the most common initial symptom. They can also present with haemorrhage but it is rare. Exclusively intraventricular location is also rarely observed. The parietal lobe, lateral to the atrium, harbors a confluence of intra and inter-hemispheric fiber bundles. Magnetic Resonance Imaging (MRI) tractography demonstrates these connections and is a valuable technique for surgery planning.

Material and methods: A 33-year-old male presented with a sudden headache followed by a tonic-clonic seizure and he was admitted in the emergency department. A brain Computer Tomography (CT) scan followed by an MRI showed an intraventricular haemorrhagic tumour in the right atrium. He was operated through the right intraparietal sulcus with image-guided surgery. The surgical video identifying the anatomical landmarks is complemented with pre-operative MRI tractography and post-operative MRI.

Results: A complete removal of the tumour was achieved and the histopathological result was a Ganglioglioma WHO grade I. After surgery, the patient recovered well without visual impairment or other deficits. Pre-operative MRI tractography shows fiber tract deviation by the tumour and the post-operative MRI confirms complete removal of the tumour.

Conclusions: This video presentation is illustrative of a surgical technique to remove lesions located in the atrium. It is a good approach to preserve most of the fiber bundles lateral do the atrium as demonstrated by the tractography and the clinical outcome.