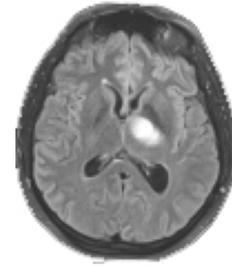


# Right Thalamic Lesion in a Young Adult

## Case Report



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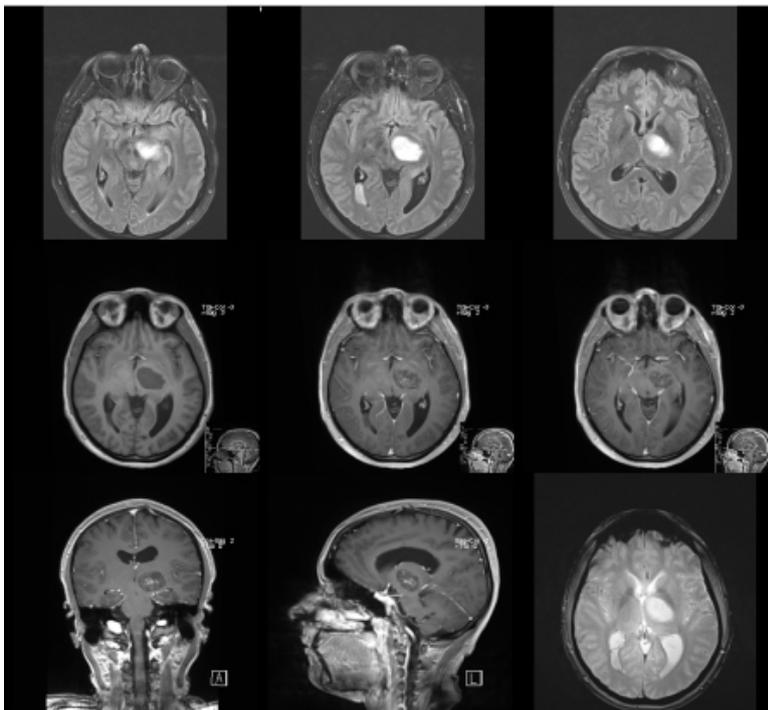
## Introduction

Thalamic lesions present a challenge to the treating neurosurgeons in terms of rare entities and challenging surgical procedures. Possible risks of postoperative neurological deterioration require a considerate course of action. We present a case of a symptomatic right-sided thalamic lesion in a young adult.

## Case Presentation & History

A 29-year-old female patient presented with exhaustion since a few months and a mild left-sided hemiparesis. The clinical examination revealed no other abnormalities. The previous medical history was without any significant findings.

## Preoperative Imaging



MR imaging revealed a left thalamic lesion with partial contrast enhancement. In FET-PET the lesion did not accumulate tracer.

Questions and Answers:

**1. What would be the differential diagnoses from imaging data?**

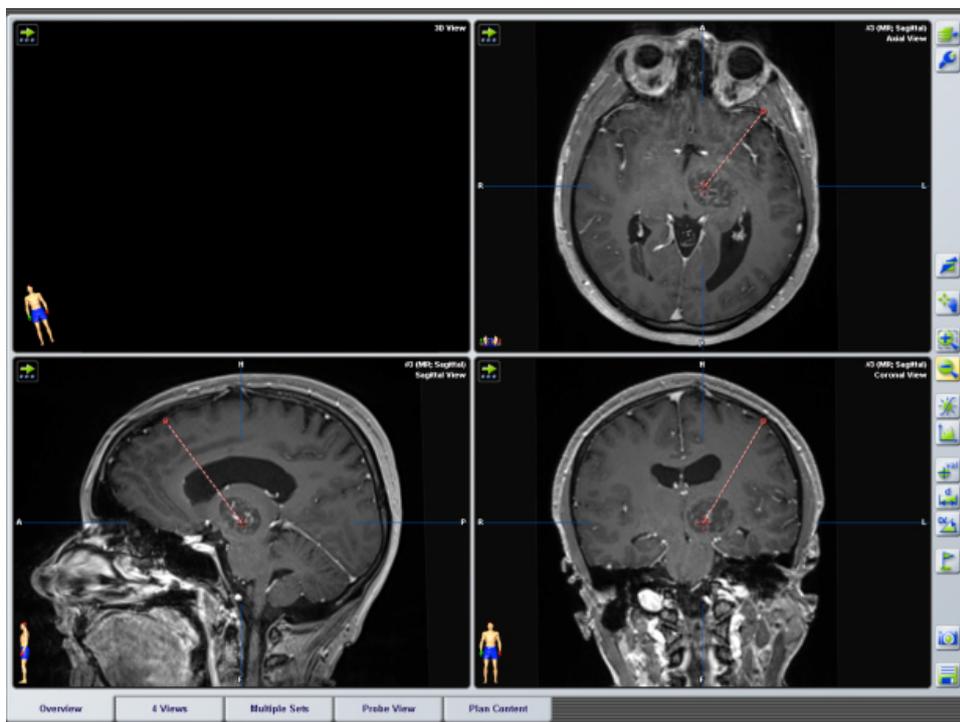
The lesion is not typical for any histological entity. Differential diagnoses would include ganglioglioma, neurocysticercosis or a cystic astrocytoma.

**2. What would be your next step?**

We decided to do a stereotactic biopsy.

**Description of the Procedure/Outcome**

A frameless stereotactic biopsy was conducted. After reaching the lesion sequential biopsies were taken within the lesion.



Histopathological evaluation revealed a non specific amorphous mass without cells. This was confirmed by the German National Reference Center for Brain Tumors.

Questions and Answers:

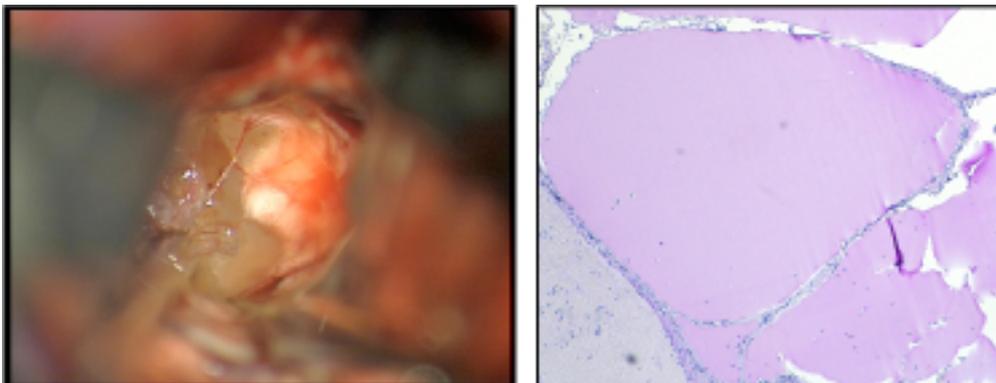
**1. What would be your next step?**

Options would be a 'wait and watch' strategy since the patient had mild symptoms only. An alternative could be a second biopsy aiming to establish a clearer diagnosis on the assumption, that the specimen taken during the initial biopsy were not representative. The third option would be the surgical resection of the lesion. While waiting for the histological diagnosis the patient's symptoms progressed by a more significant gait disturbance. Therefore, we decided to resect the lesion.

**2. What would be your surgical approach?**

A transsylvian/transinsular approach would be feasible, but we decided to use a transfrontal/transventricular/transchoroidal fissure approach from the contralateral side.

Under neuronavigation and neurophysiological monitoring (MEP/SEP) a right frontal craniotomy was created and the right anterior ventricular horn was entered transcortically. After identification of the foramen of Monroi the choroidal fissure was opened posteriorly to the foramen. Thereby, a larger approach to the third ventricle was generated. The nearest point of the lesion to the ventricular wall was chosen as the entrance point. Intraoperatively the lesion impressed as a soft amorphous mass with small septa and a bluish and more yellowish color in the centre with scarce vascularization. Under continous monitoring resection was conducted. Upon a significant MEP amplitude decline the resection was halted after subtotal removal of the lesion.



Postoperatively the patient complained of a mild right-sided dysaesthesia for about two weeks which was completely reversible after 6 weeks and short term memory deficits which slowly recovered. The symptoms prior to surgery resolved.

Postoperative imaging revealed an extensive but subtotal resection of the lesion. Final histopathological evaluation of the specimen obtained during resection could not establish a clear diagnosis except amorphous mass.

The patient recovered well and is currently followed by regular MR imaging.