

Brain Tumor: Low-Grade Glioma



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Patient history

A 51 year old woman with a history of LED and thyroid insufficiency, complained of continuous headache and chronic fatigue.

An MRI examination in an outside hospital was performed. She then was referred to a neuro-oncologist in our hospital.

Imaging findings

A right frontal parasagittal mass lesion was found, with hyposignal on T1, hypersignal on T2 and no contrast enhancement nor peri-lesional oedema (figure 1 and 2). The volume of the lesion, calculated with the Olea Medical software, was 8.83 cc. (Figure 3). There was no diffusion restriction (Figure 5). No increased perfusion (Figure 6). MRS showed increased choline and reduced Naa with Cho/Naa 1.48. No clear ml.(Figure 4). A PET-FET scan showed no increased signal in the right frontal region (Figure 7). The imaging findings were compatible with a low-grade glioma, WHO grade 2.

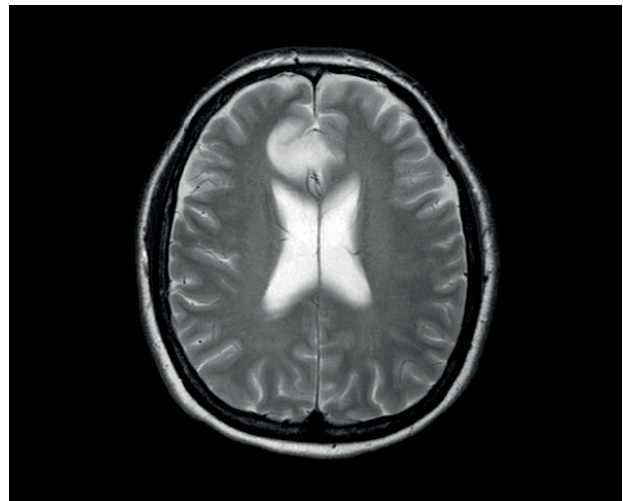


Figure 1 T2WI

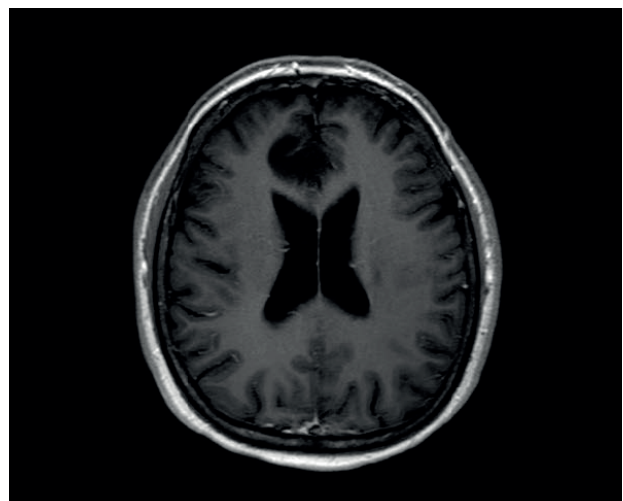


Figure 2 T1WI+GD

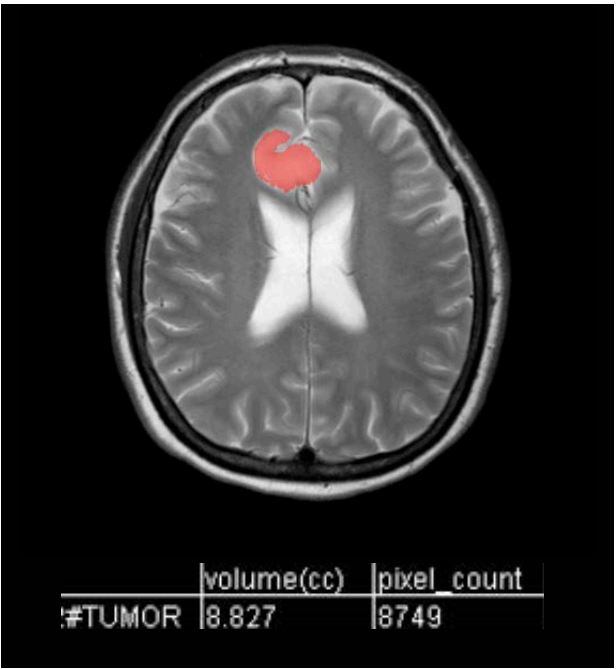


Figure 3 lesion volume



Figure 4 MRS of the lesion

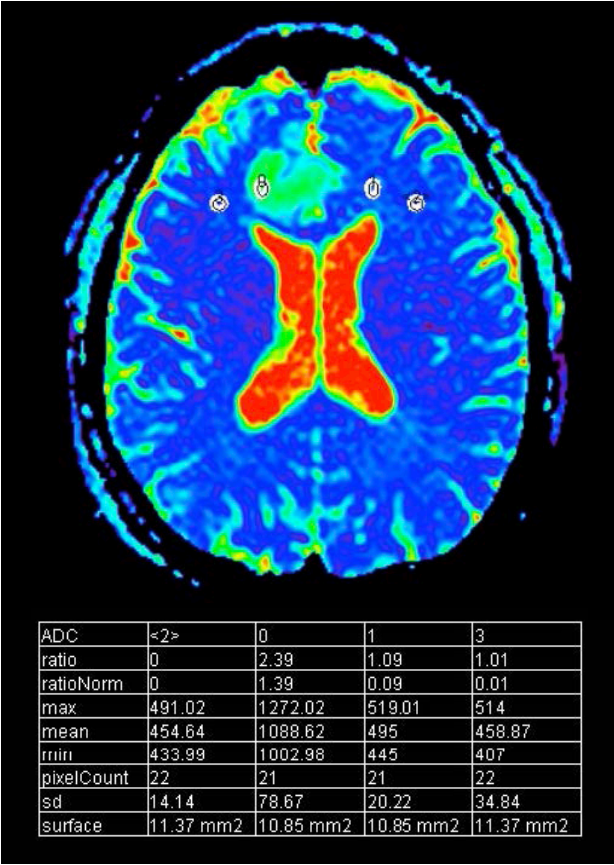


Figure 5 ADC-map

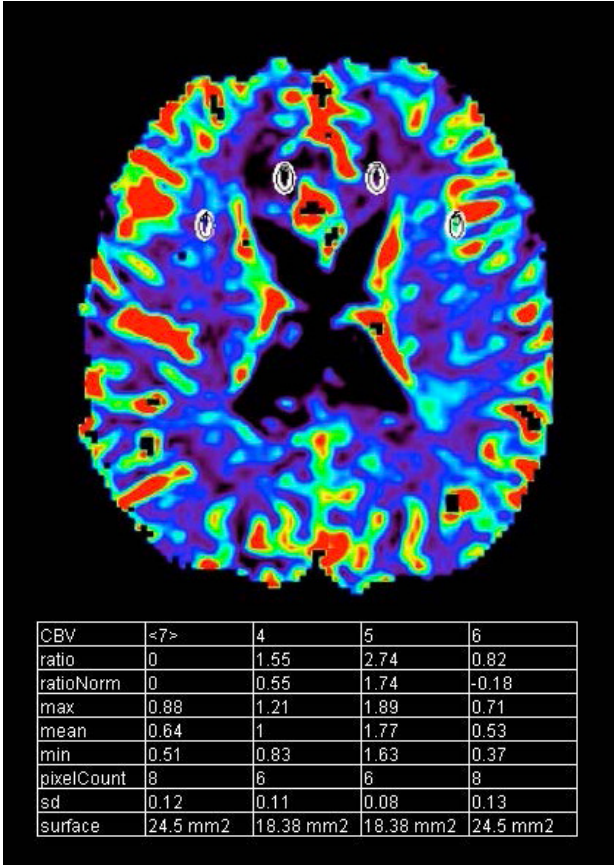


Fig 6 CBV lesion

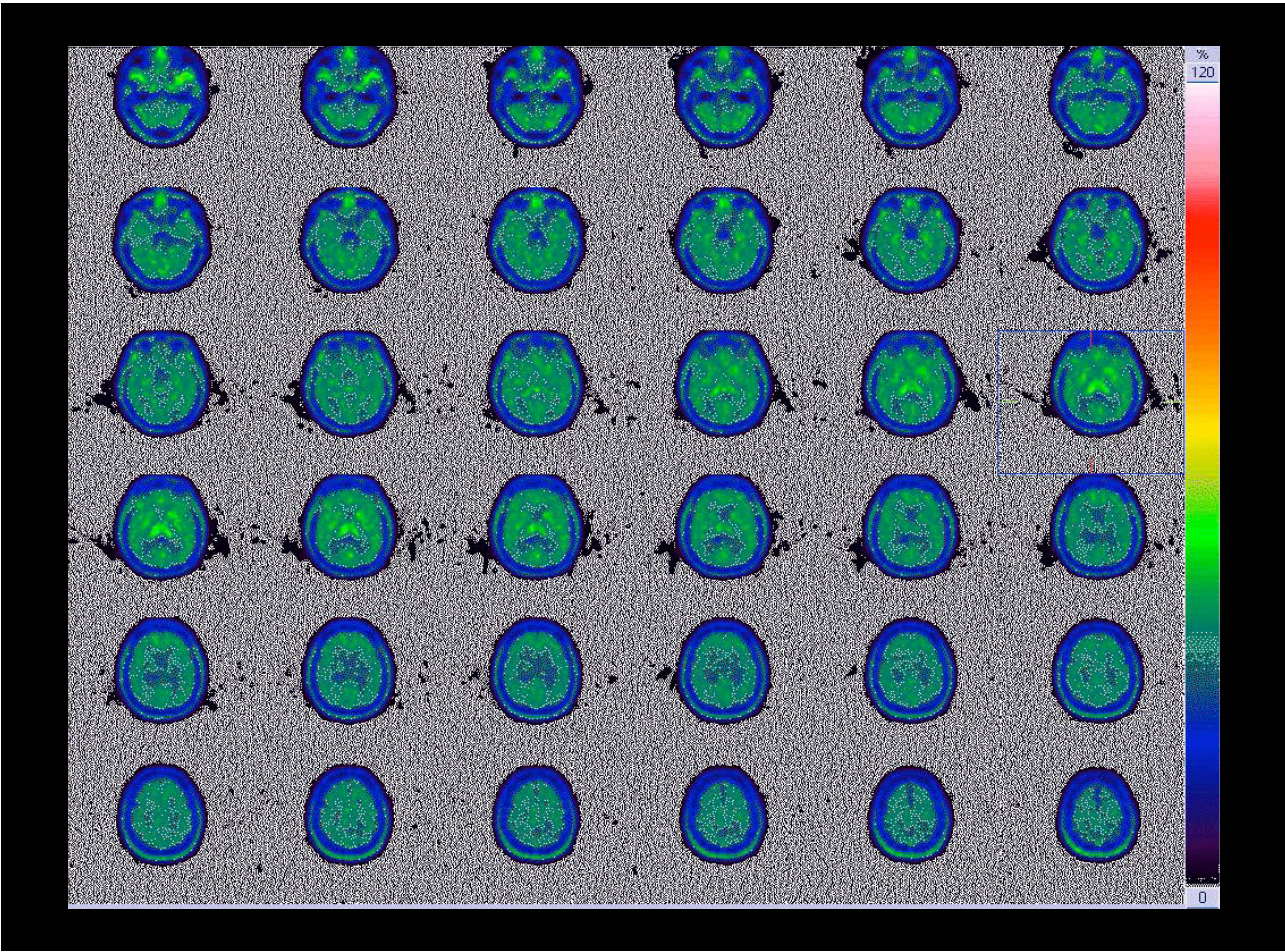


Figure 7 PET -FET scan

Discussion

This diagnosis was communicated to the patient and an advice for tumour resection was given (best option in the long run). The patient however preferred waiting and a follow-up with MRI is planned.

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