

Misinterpretation of calcified oligoastrocytoma on magnetic resonance imaging

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Magnetic resonance imaging (MRI) of the brain revealed the presence of abnormal heterogeneous lesion in the left frontal lobe in a 59-year-old woman after the first grand mal seizure attack. The lesion showed the presence of central hypointense area surrounded with perifocal edema with no significant mass effect (Figure 1A). Several foci of increased T1 signal were noted within the lesion (Figure 1B). The signal abnormality was interpreted as hemorrhagic brain infarct. However, computed tomography (CT) of the brain detected the presence of calcified mass (Figure 2). Surgical removal of the tumor was performed. The histological diagnosis was grade 3 oligoastrocytoma. Since MRI is a method of choice for establishing the correct diagnosis in a great majority of neurologic disorders, especially in detection the causes of seizures, CT is becoming more frequently excluded from obligate spectrum of diagnostic protocol (1). However not only small calcifications, but even huge calcified tumors could be misinterpreted.

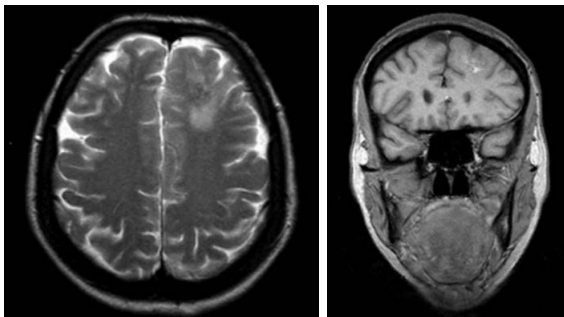


Figure 1. A) T2W axial sequence of the brain show the presence of left frontal heterogenous lesion with no mass effect. B) Small hyperintense foci of calcium on T1W coronal sequence, misinterpreted as blood products.

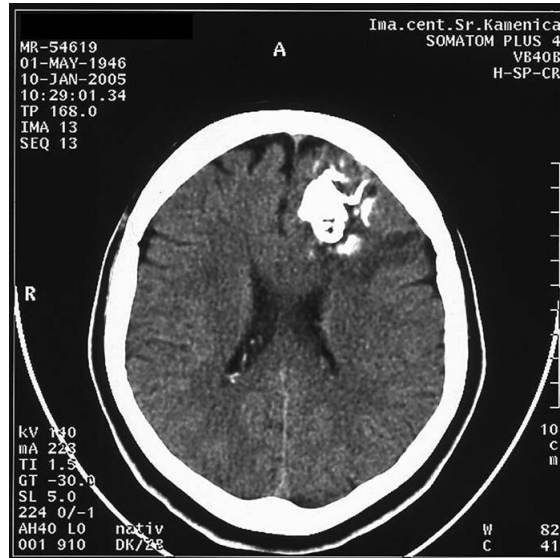


Figure 2. Non-enhanced CT study clearly shows the presence of calcified tumor in the left frontal lobe.

Conflict of interest

We declare no conflicts of interest.

REFERENCES

- 1 Kozic D, Todorovic-Djilas L, Semnic R, Miucin-Vukadinovic I, Lucic M. MR imaging – an unreliable and potentially misleading diagnostic modality in patients with intracerebral calcium depositions. *Neuro Endocrinol Lett.* 2009;30(5):553-7.

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