

## **Title**

Complex preoperative brain tumor imaging

## **Abstract**

The differentiation of glioblastoma, metastases and brain lymphoma using modern diagnostic imaging methods has a major impact on the strategy of further diagnostic examinations and treatment. In a group of 67 patients with glioblastoma and 31 with cerebral metastasis, the ability to differentiate them according to the evaluation of perfusion parameters changes in peritumoral white matter by T1 dynamic post-contrast magnetic resonance imaging was verified, with the positive predictive value in glioblastoma detection up to 91%. In a group of 36 brain lymphoma patients the importance of imaging submodalities and contribution of a complex magnetic resonance imaging protocol to detect lymphoma up to 80% were evaluated.

## **Key words**

brain, glioblastoma, lymphoma, magnetic resonance imaging, neoplasm metastasis