INTRODUCTION: The limitations of conventional MR imaging for accurate tumor assessment and differentiation of true tumor progression and pseudoprogession in glioblastoma multiforme have led to the search for new imaging modalities. The perfusion MRI is a technique that is capable of quantifying microvessel density (vasularity) and permeability of brain tissue by assessment of the relative cerebral blood volume (rCBV), reflecting the degree of microvascular proliferation in tumor tissue. This study is performed to assess the interobserver variability in the radiological assessment of perfusion MR imaging in patients with glioblastoma multiforme treated with temozolomide chemoradiation. METHODS: Three radiologist evaluated the perfusion MRI of 20 patients during treatment with temozolomide chemoradiation at baseline and at 3 months and 6 months after start of treatment. The interobserver agreement is assessed by intraclass correlation coefficients between the radiologists. Results (interobserver agreement results given in ICC’s will follow, study is ongoing.) CONCLUSION: The radiological assessment of perfusion MR imaging in patients with glioblastoma multiforme is...