Epidemiology of malignant pontine gliomas (MPG) in the paediatric population in Canada: A study of the Canadian paediatric brain tumour consortium (CPBTC)

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Purpose: To assess early MRI volumetric and signal intensity changes after spine stereotactic body radiotherapy (SBRT) and to correlate these changes to local control (LC). Materiel and methods: T1 and T2-weighted non-contrast MR images of 30 spinal lesions treated with SBRT were analyzed. T1 and T2-based gross tumor volumes (GTV) were contoured on pre-treatment and follow-up MRIs. A MatLab program was developed to analyze T2 signal changes using the spinal cord as reference signal intensity. Volume and T2-signal alterations on first follow-up MRI (3-6 months) were correlated with LC. Local recurrence (LR) was proven pathologically. Results: At a median follow-up of 15.2 months, LC and disease-specific survival were 74% and