

Feasibility of Quantitative Magnetic Resonance Fingerprinting in Ovarian Tumours for T1 and T2 Mapping

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Quantitative MRI has previously shown benefits for the assessment of ovarian cancer. Magnetic Resonance Fingerprinting (MRF) is a novel technique for quantitative MRI, which exploits the transient signals caused by the variation of MRI sequence parameters.

This proof-of-concept work demonstrates the utility of MRF in two patients, with low and high grade ovarian tumours on a 3.0 T MRI. The mean value for both subjects for T1 was 2464.5 ± 100.9 / 1974.8 ± 191.3 ms, and for T2 was 225.4 ± 33.9 / 94.1 ± 14.5 ms. The mean T1 and T2 in the tumour was higher by ~20% and ~58% in the low grade ovarian tumour in comparison with the malignant tumour.

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