

Magnetic resonance imaging in local staging of endometrial carcinoma: diagnostic performance, pitfalls, and literature review

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ABSTRACT

Aims and background. To assess the diagnostic accuracy of magnetic resonance imaging in local staging of endometrial carcinoma, and to review the results and pitfalls described in the literature.

Methods. Thirty women with a histological diagnosis of endometrial carcinoma underwent magnetic resonance imaging. Unenhanced T2-weighted and dynamic contrast-enhanced T1-weighted sequences were obtained. Hysterectomy and salpingo-oophorectomy was performed in all patients. Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and accuracy were calculated for the detection of deep myometrial and cervical infiltration.

Results. For deep myometrial infiltration T2-weighted sequences reached a sensitivity of 85%, specificity of 76%, PPV of 73%, NPV of 87%, and accuracy of 80%, while contrast-enhanced scans reached a sensitivity of 90%, specificity of 80%, PPV of 82%, NPV of 89%, and accuracy of 85%. For cervical infiltration T2-weighted sequences reached a sensitivity of 75%, specificity of 88%, PPV of 50%, NPV of 96%, and accuracy of 87%, while contrast-enhanced scans reached a sensitivity of 100%, specificity of 94%, PPV of 75%, NPV of 100%, and accuracy of 95%.

Conclusions. Unenhanced and dynamic gadolinium-enhanced magnetic resonance allows accurate assessment of myometrial and cervical infiltration. Information provided by magnetic resonance imaging can define prognosis and management. Free full text available at www.tumorionline.it

Key words: magnetic resonance imaging, endometrial carcinoma, staging.

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