



Thank you to Dr Alex Petersen from PRP Illawarra for contributing this case.

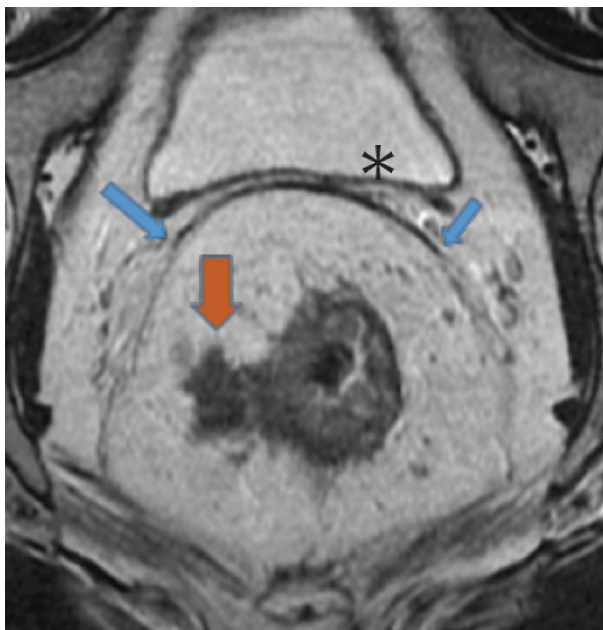
MRI IN RECTAL CARCINOMA

HISTORY

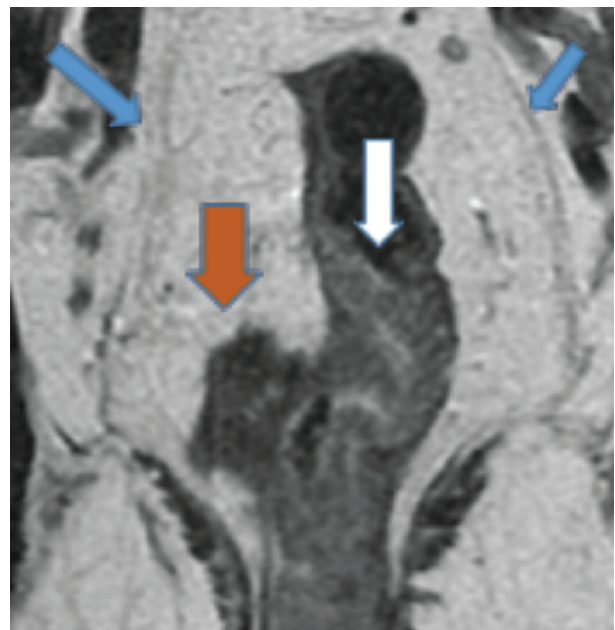
This patient was referred for MRI of the rectum to stage rectal carcinoma found on colonoscopy. Rectal MRI is very useful in staging the local spread and regional lymph node metastatic disease in rectal (and anal) carcinoma.

IMAGING FINDINGS

MRI shows the mesorectal fascia (blue arrows), the rectum with thickened wall due to tumour involvement (white arrow), local perirectal tumour extension within but not involving the mesorectal fascia (orange arrow), and uninvolved bladder (asterisk). The mesorectal fascia is an important structure as it denotes the plane of easy surgical excision. If there is direct tumour spread or lymphadenopathy beyond the mesorectal fascia, the tumour is more difficult to surgically remove and may invade adjacent structures such as the pelvic side wall, bladder, uterus, etc.



AXIAL MRI



CORONAL MRI

DISCUSSION

This patient had a rectal adenocarcinoma with local spread and regional lymphadenopathy. She was treated with preoperative chemo- and radiotherapy and subsequent surgery. Two years later she is disease free. MRI rectum is the best test for anatomical imaging of the extent of local rectal tumour invasion. It is usually used in conjunction with CT chest, abdomen and pelvis, and sometimes other imaging as needed (e.g. bone scan or PET scan) to stage the distant spread of tumour. A Medicare rebate is available for the use of MRI in the initial staging of rectal carcinoma (with specialist referral on eligible MRI scanners).