Dynamic double contrast MRI of the pelvic floor in patients with disorders of defecation

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Anatomy

The pelvic floor is a musculofascial structure inserted into the pelvic bones which serves several functions.

- Closes and controls pelvic outlet
- Provides static support against gravity and intraabdominal pressure
- Controls continence and evacuation

Pelvic diaphragm

- Levator ani
- Puborectalis
- Iliococcygeus
- Pubococcygeus

Definition of prolapse

Abnormal descent of a pelvic organ through the hiatus beneath it

- Cystocele
- Peritinocele
- Enterocoele
- Uterine prolapse
- Vaginal prolapse
- Sigmoidocoele
- Rectal prolapse

MRI technique

50cc ultrasound gel self administered into rectum and vagina. Entire study 15 mins.

Static images

- Localiser
- T1 whole pelvis axial
- T2 TSE Cor Small FOV
- T2 TSE Axial Small FOV

Dynamic series in sag plane

- T2 Haste resting
- T2 Haste clenching
- Cine loop: (Resting/clenching/ bearing down)
- T2 Haste bearing down

Reporting the image

- Note position of structures at rest with regard to PCL
- Note any structural defects on static images
- Comment on adequacy of examination; if no contrast expelled, study is not a reflection of pathology
- Note dynamic movements of anterior, middle and posterior compartments, puborectalis and abdominal muscles
- Note presence of cystocele, rectocele or enterocoele
- Note presence of any bulges or herniations suggesting fascial tears
- Note urethral motility