ABSTRACT:

TITLE: Comparison of MR proctography and barium proctography in patients with pelvic floor disorders

DEPARTMENT: Radiodiagnosis

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AIMS AND OBJECTIVES:

1) To compare imaging features of patients with pelvic floor disorders seen in MR defecogram and barium defecogram

2) To assess patient perception of these procedures

MATERIALS AND METHODS:

This was a prospective study approved by the institutional review board (IRB NO :9135). Consecutive patients with pelvic floor disorders who underwent barium proctography were included in the study. All the participants underwent both barium and MRI proctography in our institution and the images were interpreted by two radiologists who were blinded to the results of the other procedure. Following both the tests, the patients were provided with a questionnaire containing 5 questions which assessed their perception of the test.
RESULTS:

Forty patients (M:F = 19:21) and mean age of 43.65( +/- 2SD) and range of 21-75 years underwent both barium and MR proctography. Patient’s perceived more embarrassment with barium proctography when compared to MR proctography which was noted as higher mean embarrassment score in the former compared to later (mean score in barium( 6.5) vs MRI (2), p-value = <0.001 ). However, more number of patients perceived difficulty in rectal evacuation with the MR study compared to the barium (p-value=0.003). While significantly more number of rectoceles (p value=0.014) were diagnosed on MR proctography, more number of pelvic floor decent (p value=0.02) and intra-rectal intussusceptions (p value= 0.011) were diagnosed on barium proctography. The inter-observer variability for the barium proctography was substantial for identifying rectoceles, rectal prolapse and for determining the M line ( p values< 0.001). The inter-observer variability for the MRI proctography was excellent in interpreting cystoceles, periteneoceles and uterine prolapse and substantial to excellent for determining anal canal length and ano-rectal angle.( p values < 0.001). The mean time in minutes for the barium study was 12 minutes while for the MRI study was 15 minutes.

CONCLUSION:

MRI proctography findings were comparable to barium proctography in the assessment of pelvic floor disorders and proves to be a valuable imaging
modality that does not involve the risk of radiation. However in patients with predominantly posterior compartment symptoms, barium proctography may be adequate for diagnosis.