

## MR Defecography

Defecography plays a vital role in the morphologic and dynamic examination of the anorectal region as well as the pelvic floor. This technique was first described by Walden in 1953. Defecography evaluates in real time, the morphology of rectum and anal canal correlating it to the pelvic bony components. The technique usually involves injection of a thick barium paste into the rectum and evaluation of its subsequent evacuation both statically and dynamically. The most common indications of defecography are constipation, incomplete evacuation or incontinence (often associated with rectal bleeding), mucous discharge, and perineal pain or discomfort. Defecography represents a unique diagnostic technique for the examination of defecation dysfunctions' in conditions like rectocele, intussusception, enterocele and puborectalis spasm.<sup>1</sup>

Ref: 1. Mehmet AB, Ahmet S, Murat G, et al. Significance of defecography and the role of rectocele in constipated patients. *Open Journal of Gastroenterology*. 2012;2:40-44.

# MR Defecography

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**“MR defecography is an excellent diagnostic tool that facilitates correct diagnosis of abdominal conditions without exposure to radiation”**

### Patient history

A 40-year-old woman presented with longstanding history of constipation and difficulty in passing stools. She had a history of three vaginal deliveries. No other relevant family or medical history.

### Physical examination

- Mild abdominal distention was observed without tenderness

### Provisional diagnosis

- Obstructed defecation syndrome

### MRI technique and Findings

The patient was asked to empty the bladder and positioned in lateral decubitus position. The rectum was filled with 180 ml of ultrasound gel, using a soft tip rubber catheter. The patient was made to wear an adult diaper and a plastic drape was wrapped around her. The patient was then positioned supine and a phased array coil was placed in same way as done for routine pelvic study. 2D Fiesta sequence was run while the patient performed squeeze, strain, and defecate maneuvers. The sequence was evaluated in cine mode. MR Defecography revealed significant descent of the anorectal junction with evidence of recto-rectal intussusception and a large anterior rectocele. Mild cystocele was also seen. The findings were consistent with Obstructed Defecation Syndrome.



## Acquisitions Parameters: 2d fiesta

|           |       |          |               |                         |
|-----------|-------|----------|---------------|-------------------------|
| FOV-32    | ST-12 | Freq-192 | spacing-1.0   | Flip angle-55           |
| Phase-288 | NEX-1 | BW-83.33 | multiphase-on | phases per location-150 |

## Advantages

MR Defecogram is far superior to conventional defecogram, since it provides exquisite soft tissue details without ionizing radiation.

## Findings

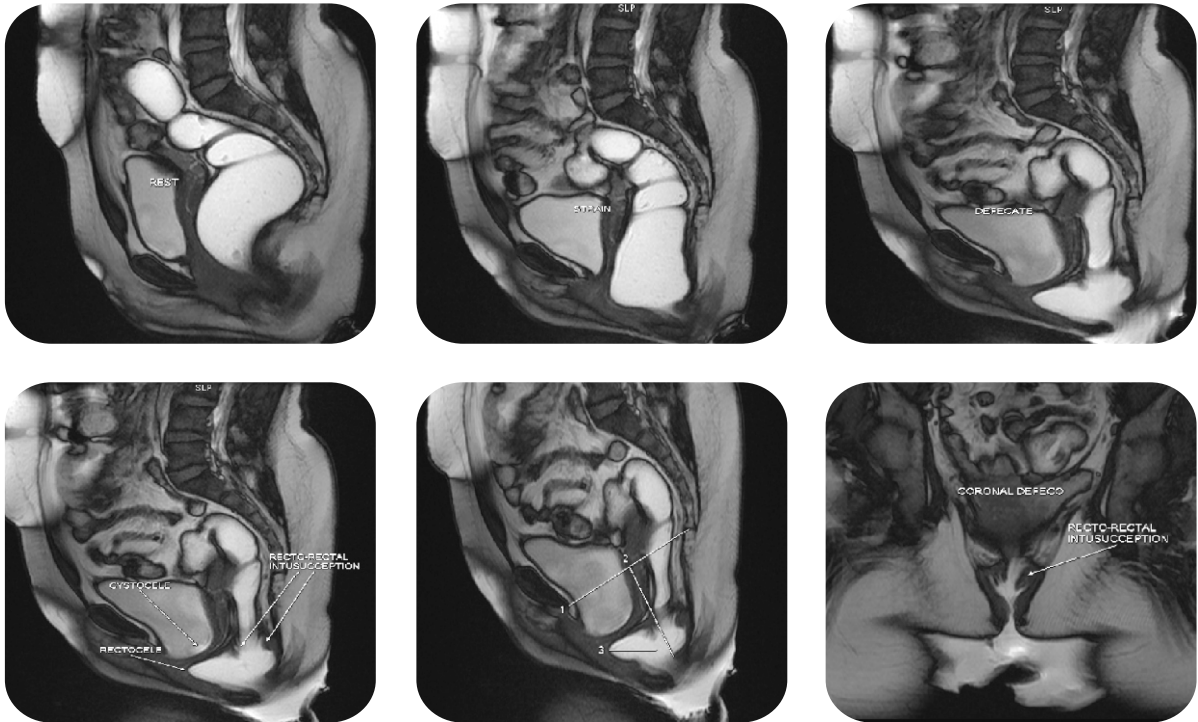


Image Courtesy of Alpha MRI – Mumbai

## Treatment

Surgical management of rectocele and cystocele along with dietary consultation.

## Conclusion

MR Defecogram helps to clearly visualise the intestine thereby aiding correct diagnosis.

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