

receive radiofrequency coil is strapped around the pelvis. A multiphase dynamic fast T1-weighted spoiled gradient-recalled-echo sequence is performed in the mid sagittal plane of the anal canal, with an image update provided every 2 seconds. Images are obtained with patient at rest, at maximal sphincter contraction, during straining and during defecation. These Images are analysed on an attached workstation in cine loop mode. In addition a routine T2 weighted sequence of the pelvis in coronal plane is also acquired to evaluate the routine pelvic anatomy.

In this technique it is vital to make the patient wear an adult diaper with drapes between the patient and the MRI coil to prevent soiling of the equipment which may also pose an electrical hazard to the patient.

Normally, the pelvic floor is elevated with reduced anorectal angle during squeezing (sphincter contraction). On straining and defecation, the anorectal angle increases (so the rectum and anal canal are almost in a straight line) with mild descent of the anorectal junction and widening and opening of the anal canal.

### FIGURES OF MRI PROCTOGRAM



Fig J : MR defecography images at rest, squeeze, straining and defecation.

#### Grading system of findings at defecograms.

Abnormalities	Small	Moderate	Large
Rectal descent	<3 cm *	3-6 cm*	>6 cm*
Bladder descent	<3 cm *	3-6 cm*	>6 cm*
Enterocoele	<3 cm *	3-6 cm*	>6 cm*
Anterior rectocoele	<2cm *	2-4 cm*	>4cm*

- No grading system is used for spastic pelvic floor syndrome.
- Intussusceptions are classified as intrarectal, intra anal or extra anal ( prolapse)

### Our experience

• Total Xray evacuation proctograms	122
• Normal	46
• Rectocoele (anterior)	70
• Enterocoele	05
• Abnormal pelvic descent	46
• Intussusceptions	03
• Total MRI proctograms	12
• Normal	04
• Rectocoele	07
• Enterocoele	0
• Intussusceptions	0
• Spastic floor	01

### CONCLUSION

The salient features of the above studies is the high incidence of prevalence of rectocoele in the patients suffering from ODS. 4 patients of pelvic surgery like hysterectomy had enterocoele, which probably is accentuated, by the low position of bowel loops in pelvis due to postoperative status. The low yield of intussusceptions on Xray defecogram is probably due to lack of dynamic assessment and on the MRI defecogram is probably due to supine position. A larger study group of patients would be necessary before commenting on the role of defecograms in transient intussusceptions. Also the fact that rectocoeles is seen in normal population according to some studies<sup>6</sup> makes it natural to question whether the rectocoele is a cause or effect of ODS.

### REFERENCES

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### DRUG PROFILE

#### Lubiprostone

**Clinical Pharmacology:** Lubiprostone is a locally acting chloride channel activator that enhances a chloride-rich, intestinal fluid secretion without altering sodium and potassium concentrations in the serum. **Mechanism of Action:** Lubiprostone acts by specifically activating CIC-2, which is a normal constituent of the apical membrane of the human intestine, in a protein kinase A-independent fashion. By increasing intestinal fluid secretion, Lubiprostone increases motility in the intestine, thereby facilitating the passage of stool and alleviating symptoms associated with chronic idiopathic constipation. **Pharmacokinetics:** Lubiprostone has low systemic availability following oral administration and concentrations of Lubiprostone in plasma are below the level of quantitation (10 pg/ml). **Indications:** (i) *Chronic Idiopathic Constipation:* The recommended dosage of Lubowel is 24 mcg twice daily orally with food and water. (ii) *Irritable Bowel Syndrome with Constipation:* The recommended dosage of Lubowel is 8 mcg twice daily orally with food and water. **Contra-indications:** Patients with known or suspected mechanical gastrointestinal obstruction. **Warnings and Precautions:** Patients taking Lubiprostone may experience nausea. If this occurs, concomitant administration of food with Lubiprostone may reduce symptoms of nausea. Lubiprostone should not be prescribed to patients that have severe diarrhea. Patients should be aware of the possible occurrence of diarrhea during treatment. Patients should be instructed to inform their physician if severe diarrhea occurs. In patients with symptoms suggestive of mechanical gastrointestinal obstruction, the treating physician should perform a thorough evaluation to confirm the absence of such an obstruction prior to initiating therapy with Lubiprostone. **Pregnancy & Lactation :** The safety of Lubiprostone in pregnancy has not been evaluated in humans. Lubiprostone should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. **Drug Interactions:** Based upon the results of in vitro human microsome studies, there is low likelihood of drug-drug interactions. Based on the available information, no protein binding-mediated drug interactions of clinical significance are anticipated. **Side Effects:** 12% and 11% of patients who received Lubiprostone 24 mcg twice daily develop diarrhea and headache; respectively. Rarely abdominal pain, abdominal distention, flatulence, vomiting, loose stools, abdominal discomfort, dyspepsia, dizziness, edema, fatigue and chest discomfort/pain occur.