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| **Test** | **Procedure** |  |
| **Resting basal pressure** | Recorded by averaging the pressure values over a minimum of 30 seconds after a variable period of adaptation (usually 1-5 minutes), is the difference between intrarectal pressure and the highest recorded anal sphincter pressure at rest (generally at 1-2 cm from the anal verge) | Anal resting pressure predominantly reflects IAS tone (80 %) with some EAS pressure |
| **Anal canal length** | Length of the anal canal (from the anal verge) over which resting pressure exceeds rectal pressure by ≥5 mmHg |  |
| **Squeeze** | Is highest pressure increase over the baseline resting pressure during voluntary squeeze maneuver (also absolute value over a maximum of 20 seconds) | Voluntary anal squeeze pressure reflects EAS function |
| **RAIR** | Drop of the resting pressure elicited by inflating a rectal balloon with 5 mL increments in infants and newborns up to 20 mL and by 10 mL increments in older children. The volume required to elicit the RAIR varies according to the size of the rectum, it is recommend continuing to increase the volume to higher volumes (250-300 mL) in older children if complete relaxation is not obtained | Distension of the rectum elicits an intrinsic reflex (i.e., via the myenteric plexus) that produces a relaxation of the IAS |
| **Rectal sensation** | Assessed by a progressively increase in balloon inflation size.  - First sensation: lowest balloon volume that is sensed by the patient.  - Urge sensation: lowest balloon volume at which the patient develops the urge to defecate.  - Maximum tolerable sensation: inflation size that is associated with severe urgency and pain.  Can be assessed by the intermittent rectal distension method (inflation and total deflation of the balloon) or through ramp inflation (balloon is inflated progressively with larger volumes without deflation intervals) | It provides information  regarding the patient’s perception of stool, is useful in patients with fecal incontinence  or rectal hyposensitivity |
| **Bear-down maneuver**  **(simulated defecation)** | Rectal thrust pressure increases and the anal canal pressure decreases with relaxation of the EAS and pelvic floor muscles | It is used to assess anorectal and pelvic floor pressure changes during attempted defecation.  Patients showing no coordination are thought to have dyssynergic defecation often  resulting in outlet obstruction constipation |
| **Balloon expulsion** | Patient is asked to expel a filled balloon from the rectum. The test is considered normal if the patient is able to expel the balloon within a defined time. Normal adults can expel the balloon inflated to 50-60 cm within 1 minute.  No normative data exist for children | balloon expulsion test is an adjunct evaluation to the ARM to evaluate the presence of dyssynergia and pelvic outlet obstruction |
| IAS, internal anal sphincter; EAS, external anal sphincter; RAIR, rectoanal inhibitory reflex | | |

**TABLE 5 - SUPPLEMENTAL DIGITAL CONTENT 6**

**Tests performed and parameters assessed during anoractal manometry**