



Posterior Sagittal Anorectoplasty: Female

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Indications and Benefits

- Anorectal malformation
- Benefits: creation of perineal body, adequately sized anus, anatomic optimization for future continence

Risks and Alternatives

- Standard risks (bleeding, infection, need for additional procedures, and risks of anesthesia)
- Rectal injury
- Stenosis/stricture of rectum
- Injury to vagina
- Injury to surrounding structures
- Mislocation of anus

- Breakdown of perineal body
- Rectovaginal fistula
- Wound dehiscence
- Alternatives: Colostomy with mucous fistula

Essential Steps

1. Identification of fistula
2. Stimulation of muscle complex – mark anterior and posterior limits
3. Place sutures circumferentially at mucocutaneous junction of fistula
4. Posterior sagittal incision
5. Separate fistula/rectum from vagina
6. Stimulate sphincter complex again to determine site of anoplasty
7. Reconstruction of perineal body
8. Anoplasty

Note These Variations

- Use of laparoscopy/abdominal approach for rectovaginal fistulas

Operative Dictation

Preoperative Diagnosis Anorectal malformation

Findings Same as postoperative diagnosis

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Procedure(s) Performed Posterior sagittal anorectoplasty – female

Anesthesia *General*

Indications This is a/an ___-day/week/month/year-old female with an anorectal malformation specifically [*anorectal malformation defect*]. She was deemed to be a suitable candidate for posterior sagittal anorectoplasty – female.

Procedure in Detail Following satisfactory induction of anesthesia, the patient was placed in prone position and appropriately padded. Timeouts were performed using both preinduction and preincision safety checklists with participation of all present in the operative suite. These confirmed the correct patient, procedure, operative site, and additional critical information prior to the start of the procedure. A Foley catheter was passed into the bladder. The perineum was then prepped and draped in the usual sterile fashion.

Inspection of the perineum revealed the urethra and vagina to be normal. (*A cystoscope was utilized to delineate the urethra, which was normal. She also had a normal bladder neck that contracted well, with normal bladder mucosa. Passage of the scope into the introitus demonstrated a normal vaginal lumen, no vaginal septum, and a normal appearing single cervix.* Prior to the administration of paralytic anesthetic agent, a muscle stimulator was utilized to delineate the sphincter mechanism. The anterior and posterior limits of the sphincter mechanism were then marked.

[Choose One]

If Rectovesibular Defect: Inspection of the perineum revealed the distal rectum to be in the vestibule. After completion of the cystoscopy, the patient was placed in the prone position to begin the repair. Multiple silk sutures were placed at the mucocutaneous junction of the rectum, which was in the vestibule of the vagina.

If Rectoperineal: Inspection of the perineum revealed the distal rectum ending as a tiny hole at

the anterior aspect of the sphincter mechanism, consistent with a rectoperineal fistula. The patient was placed in the prone position to begin the repair. Multiple silk sutures were placed in the mucocutaneous junction of the fistula.

If no Fistula Defect: Inspection of the perineum revealed no fistula. The urethra and vagina were normal. The patient was placed in the prone position to begin the repair. The bulge of the rectal wall was encountered in the area of the posterior vagina. We opened the posterior rectal wall and placed multiple silk stitches in it for mobilization. We continued to open the posterior rectal wall in its midline moving anteriorly. Multiple silk sutures were placed across the most anterior rectal wall. There was no rectovaginal fistula. The lateral rectal walls were mobilized anteriorly taking care to shave the rectum off the posterior vagina.

If Rectovaginal: Inspection of the perineum revealed a rectovaginal fistula – the urethra was visible anterior, and the vagina had a septum (or no septum) through which the rectovaginal fistula was visible. A circumferential body prep from her nipples to toes was performed in the usual sterile fashion. We began the operation prone with a long posterior sagittal incision staying within the midline. This incision was carried down perfectly in the midline splitting the parasagittal fibers, ischioanal fat, muscle complex, and levators. This dissection was carried down until the *single vagina or two hemivaginas* were visualized.

If Two Hemivaginas: The two hemivaginas were both opened up posteriorly and the septum was resected.

Since the vagina shared a common wall with the urethra, this was not dissected. A single vaginal orifice was created utilizing interrupted Vicryl sutures. If rectum reached from below, the operation proceeded like for a vestibular fistula. If rectovaginal fistula is higher, then the patient was then placed in the supine on the operating room table and a diagnostic laparoscopy was performed. Utilizing hook cautery and blunt dissection, the rectovaginal fistula was isolated and divided at its insertion into the vagina. The rectum was then carefully mobilized until it could be

brought down into the muscle complex (which had been previously stimulated and marked) under direct laparoscopic visualization. The colonic/rectal orientation was again confirmed laparoscopically and the ports were removed, and port sites closed. The sphincter complex was stimulated and incised enough to pull-through the rectum under direct visualization and performed the anoplasty.

If no Laparoscopy was Performed: A posterior sagittal incision was then made through the skin and subcutaneous tissues.

The sphincter mechanism was easily delineated with a pink ellipse and we went directly through this, delineating the entire posterior wall of the rectum, noting a whitish fascia surrounding it. Dissection was performed laterally to define the lateral plane and then began to come circumferentially around the sutures. The rectum was then lifted superiorly and the common wall between the rectum and vagina was dissected. The rectum was completely separated from the posterior wall of the vagina until a typical areolar tissue reached which defines the two separate walls. Dissection of the attachments to the rectum was performed to gain adequate length of rectum to allow the anoplasty to reach the

perineum without tension. There was approximately 1–2 cm of fistula distal to the normal rectal tissue. The perineal body was closed utilizing multiple layers of long-term absorbable sutures. The skin was closed with interrupted sutures at the skin level up to the anterior limit of the sphincter mechanism. Tension was then placed on the rectum and Vicryl sutures were used to tack the rectum to the posterior edge of the muscle complex all the way to the level of the levators and up to the level of the skin. The reconstruction of the posterior sagittal incision was performed by reapproximating the ischioanal fat and parasagittal fibers. The skin was closed with interrupted Vicryl sutures. The anoplasty was performed utilizing multiple interrupted Vicryl sutures. A __# Hagar dilator was able to pass straight and easily into the rectum. The rectum was healthy and viable at the anoplasty, and inverted nicely after cutting of the sutures.

Upon completion of the procedure, a debriefing checklist was completed to share information critical to the postoperative care of the patient. The patient tolerated the procedure well, *was extubated in the operating room*, and was transported to the postanesthesia care unit in stable condition thereafter.