

PEDIATRIC SURGERY

Posterior Sagittal Anorectoplasty (Pena Procedure) for recto-urethral fistula

Preference Card

1. Do colostogram at some point pre-op. Put a foley with balloon blown up in mucous fistula and inject contrast to try to identify recto-urethral fistula--may not show up on the VCUG. It's important to know the anatomy before starting the operation as the approach will be altered if there is a recto-bladder neck fistula.
2. At start of operation, put a foley with balloon up in the mucous fistula. This will allow saline to be instilled by the circulating nurse during the dissection to help identify the rectum. Do a whole lower body prep (nipple level down), wrap legs in stockinettes, put an extremity drape over the baby up to the colostomy, and place the baby prone on some towels. Place a 6 Fr Rusch foley in urethra after the prep so it is accesible during the operation.
3. Make a vertical incision and dissect through parasagittal fibers then get to vertical muscle group inferiorly. It is essential that all the muscles be divided in the midline, leaving muscle on each side. Use the Pena stimualtor to identify the orientatin of the muscles at each step. Then, divide the levators in the midline--Waldeyer's fascia is underneath with the rectum below that.
4. Blow up the rectum with betadine/saline mixture via foley in the mucous fistula to help to identify the rectum.
5. Incise vertically, posteriorly in the distal rectum and place 5-0 silk stay sutures. Incise around the rectum, leaving intact the common wall with the urethra.
6. Place 5-0 silk stays adjacent to the fistula and incise adjacent mucosa and develop submucosal plane in front of rectum within the common wall with the urethra until there is no longer a common rectal/urethral wall.

7. Continue to mobilize the rectum superiorly--you need to divide fibers right on rectal wall--almost in the wall--rather than bluntly dissecting, which won't give you adequate length.

8. Approximate the levators with 5-0 PDS over the rectum. Then close the anterior part of the vertical muscle complex with 5-0 PDS and the perineal body. Then, close the posterior part of the vertical muscle complex--incorporate muscle then posterior rectal wall then muscle, similar to the incorporation of the esophagus in a Nissen. Before doing this, reconfirm the margins of the muscles with the stimulator.

9. Cut off any excess rectum and create the anoplasty. Sew the rectum to perianal skin--don't cut any skin out--with interrupted 5-0 PDS.

10. Close the parasagittal fibers with 5-0 PDS.

11. Close skin with 5-0 vicryls.

12. Leave foley for 7 days. Leave 2 diapers--put a hole in inner diaper and bring the foley through it to the outside diaper. This avoids the risk of the foley being pulled on and displaced.

Please note: This operation is somewhat tedious and dependant upon details. The best way to understand the operation before doing it is to watch the video that Dr. Pena has made. The videos documenting the operation for recto-urethral fistula in boys and the operation for recto-vestibular fistula in girls are available in Dr. Gollin's office. It is essential to watch the video before doing the operation.

When operating on perineal fistulas in boys or girls the operation is simpler since the urethra shouldn't be an issue, however, the same care in the identification of the muscle complex is required.