

## How Best to Expose the Entire Surgical Anal Canal in the Operative Field during Transanal Pull-through for Hirschsprung's Disease. A Crucial Step That Determines Success

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**Aim:** During transanal pull-through (TAPL) for Hirschsprung's disease (HD), exposing the entire surgical anal canal (SAC) including the squamo-columnar junction, or anorectal line (ARL) is a crucial step for minimizing problematic postoperative bowel function. We present a hint for exposing the entire SAC.

**Method:** Histologically, the ARL represents the junction of proximal unilayer columnar colorectal mucosa with distal stratified squamous epithelium and is the proximal limit of the SAC. It is an obvious landmark; proximal mucosa is vivid pink and distal mucosa is more whitish. We use the Lone Star (LS) self-retaining retractor system to expose the ARL. Before we attach the LS-hooks to the anal sinuses on the dentate line full circle, we place 3/0 sutures at 0, 3, 6, and 9 o'clock around the anus to expose the anal sinuses (Figures 1A and 2). If a patient's buttocks cannot be positioned as described or the patient is too high on the table, the LS ring doesn't sit well, resulting only in dilatation and lengthening of the SAC without prolapse (Figure 1B). By hanging the patient's buttocks 5cm over the end of the table, the LS ring sits snugly and the ARL and entire SAC prolapses to the anal verge (Figures 1C and 2).

**Results:** Good positioning, as described, greatly facilitated dissection in 61/68 TAPL cases, while poor exposure hindered treatment in 7/68.

**Conclusion:** Thorough exposure of the entire SAC, which is crucial for adequate TAPL, is greatly facilitated by patient positioning.

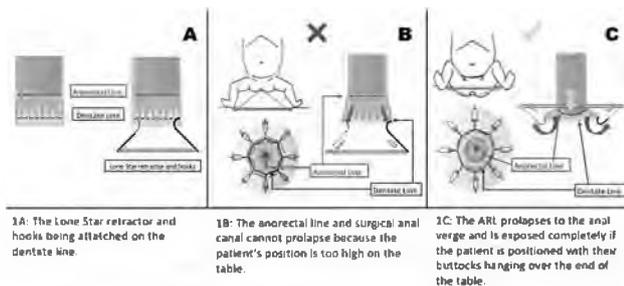


Figure 1: Patients positioning and exposure



Figure 2: Intraoperative appearance of a well positioned patient

## Straight Ileo-rectal Anastomosis in Treatment of Total Forms of Hirschsprung's Disease

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**Background:** The purpose of the study was to discuss the management of a patient with a total colonic aganglionosis and to present individual cases of straight ileo-rectal anastomosis (SIRA) for this pathology and to assess outcomes of its shaping.

**Material/Methods:** In this study we evaluated postoperative complications and long-term functional outcome of 8 patients with total colonic aganglionosis treated by SIRA in our departments during last 10 years. Among of 8 patients, who included into the study, were 5 males and 3 females. Patients were in age from 6 to 9 month old at the moment of SIRS formation. All patients had proctocolectomy with ileostomy as the first stage of surgical treatment. SIRA have been performed in all patients with preservation of preoperative ileostomy with «protective» purpose.

**Results:** Not one patient had preoperative enterocolitis before SIRS. Diarrhea was preserved in all patients during 4 - 6 month after surgical treatment. 2 patients suffered from postoperative enterocolitis which required temporary treatment with metronidasol with positive clinical effect. Complete anal continence was restored in 7 patients near 1 year after operation. One patient required in continuous medical therapy and bowel management more than 1 year. One patient had complication of ileostoma (necrosis), but others didn't have any surgical postoperative complications.

**Conclusions:** SIRA with a «protective» ileostomy is a simple and successful procedure with good long-term functional outcome for patients with total colonic aganglionosis. Results of surgical treatment patients with SIRA are good in majority children and complications not systemic.



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