Objective: To present a new technique of Laparoscopically assisted anorectoplasty (LAARP) for High anorectal malformations (HARM).

Method: 9 cases of HARM were operated by this technique from 2003 to 2007. One infant had Down syndrome. A sigmoid or transverse colostomy at birth followed by LAARP between 2 to 5 months. Abdomen was accessed by 3 or 4 ports (two 5 mm & two 3 mm). 5 mm, 30 degree telescope was used. The fistula was identified after mobilizing the colon & rectum. Harmonic scalpel or diathermy was used to divide the fistula. A 3 mm curved dissector was used to gently tunnel behind the urethra under vision from above & by assessing from the perineal side. A 6 or 8 F Foley catheter was retrieved through the tunnel. The balloon was inflated to dilate the tunnel under vision. The tunnel was gradually dilated under vision. The pulled through bowel was gently eased out & anastamosed to the anal site. Urinary catheters are removed after 5 days. Regular dilation was started from day 12. Results: Nine children are alive & well. 8 are on regular follow up. Our initial results are satisfactory. One child had anal stenosis & one had mucosal prolapse. Our early results are satisfactory.

Discussion: Usually the dilation was performed from below after passing an Innerdyne expandable trochar blindly. These trochars are expensive US $350. In our technique, Foley catheter is used & the dilation was performed from above, under vision. This technique is cost effective & safe. The muscle complex is preserved with minimal disturbance to the anatomy.