Laparoscopically assisted vaginal pull through in four cases of congenital adrenal hyperplasia with high urogenital confluence: early results

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Purpose: Surgical management of the high urogenital sinus is challenging. Separation of the vagina from the urogenital sinus is the most challenging portion of the operation. Presence of short urethra is a contra indication for urogenital sinus mobilization as this will jeopardize urinary continence.
In this study we report our initial results with four cases of high urogenital sinus treated by laparoscopically assisted vaginal pull through technique.

Materials and Methods:

This study included four girls undergoing laparoscopically assisted vaginal pull through. All have the diagnosis of congenital adrenal hyperplasia with high urogenital sinus.

The surgical technique was performed in supine position with the camera at the umbilicus and two working ports in the right and left iliac fossae. Another port for retraction of the urinary bladder was inserted in the supra pubic area. Mobilization of the vagina was initiated by hook cautery.

We performed this mobilization of the vagina till the confluence became visible and vaginal size become tapered at its junction with the urethra. Then the connection is sutured or clipped then divided. The tract for pullthrough is created from the perineum and a clamp is passed from down to the peritoneal cavity. The vagina is grasped and pulled outside then sutured to the skin.

Results: The four patients were preoperatively assessed by genitography. All had short urethra above the urogenital confluence 15 mm or less. They had laparoscopically assisted vaginal pull through. Mobilization of the vagina has been possible on all cases attempted without injuries to the near structures in the pelvis. Dilatation started 2 weeks postoperative and showed patency and good diameter of the pulled vagina.

Conclusions:

The laparoscopically assisted vaginal pull through approach provides optimal exposure, facilitates vaginal dissection and separation from the urethra, avoids injuries to the urinary structures. It also allows reconstruction of the vagina

without tension. Early results showed good vaginal size and that urinary functions are not impaired.

Key Words: vaginal pull through; congenital adrenal hyperplasia, laparoscopy; high urogenital confluence