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Reconstruction of congenital rectovestibular fistula in an adult. Case report

Anorectal malformations are common congenital anomalies but diagnosis and treatment in adulthood are quite rare. Treatment during adulthood may be challenging due to anatomic and physiologic changes. Posterior sagittal anorectoplasty may provide good cosmetic and functional results even in adult patients.

KEY WORDS: Congenital malformations, Rectovaginal fistula, Rectovestibular fistula

Introduction

Although anorectal malformations are well-known congenital anomalies among children, they are exceptional in adults [1]. Posterior sagittal anorectoplasty (PSARP) with or without a proximal fecal diversion is a standard technique to treat anorectal malformations performed in infancy [2]. It's quite rare that a patient reach to adult age without any medical consult or treatment. Here we present a 32 year old female patient with rectovestibular fistula successfully treated with PSARP.

Case report

A 32-year-old female patient admitted to our clinic due to abdominal pain, distention and difficulty in defecation. Patient's abdominal examination revealed moderate distension and perineal examination revealed rectovestibular fistula (Fig. 1).

Although patient had medical treatment for multiple urinary infection episodes there is no surgical consultation or intervention present in her past medical history.
In order to identify the exact pathology Abdominal Computerized Tomography and Magnetic Resonance Imaging and fistulography were performed (Fig. 2).
Radiologic findings were compatible with intestinal obstruction and anal canal was visible as a thin band from 3 cm proximal to where the anal verge is supposed to be located (anorectal junction). A rectovestibular fistula tract was present at the region of the dentate line plane. No additional anomaly was detected [3].
Three stage operation was planned. First a proximal fecal diversion (loop colostomy) performed and fifteen months later posterior sagittal anorectoplasty (PSARP) was performed by a teamof pediatric and general surgeons [4].

Surgical Technique

The patient was prepared in jackknife position and the perineum, genital region and perianal area were prepared. Multiple 3-0 silk traction sutures were placed at the mucocutaneous junction of the anal opening to provide a uniform traction to rectum as the rectum was separated from the vagina. An incision was made extending from the lowest part of the coccyx to the fistula orifice. This incision divided the sphincter mechanism, including the parasagittal fibers, muscle complex and levator

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Fig. 1.

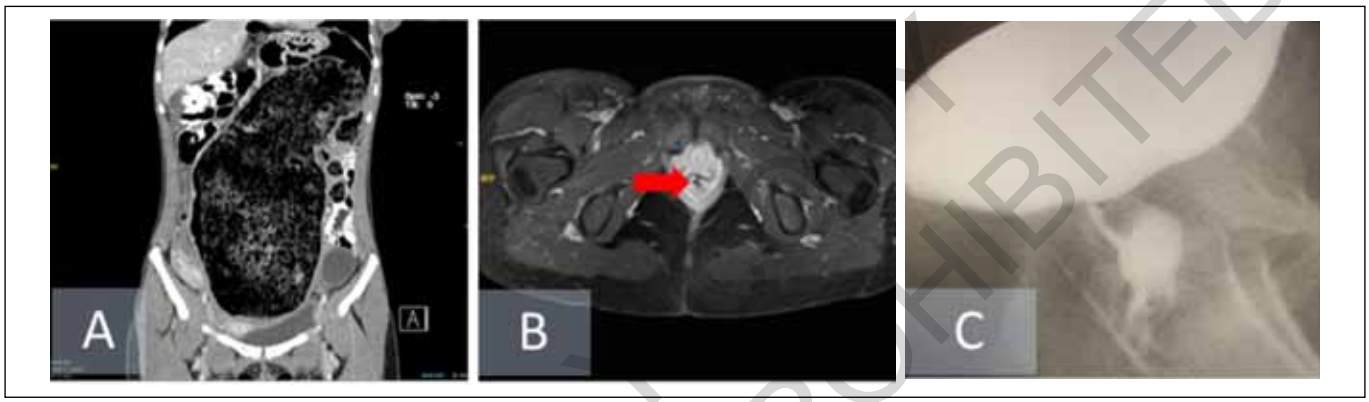

Fig. 2.

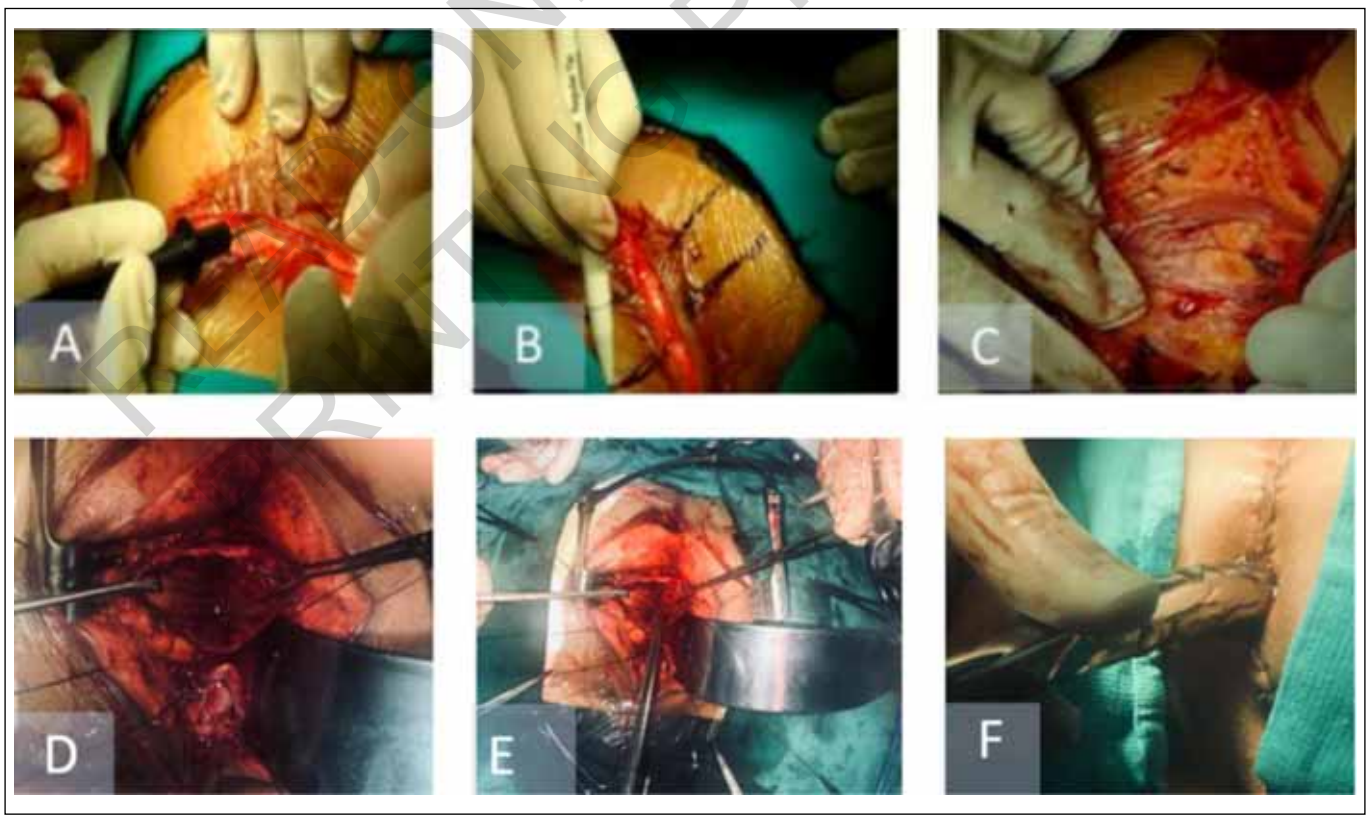

Fig. 3.

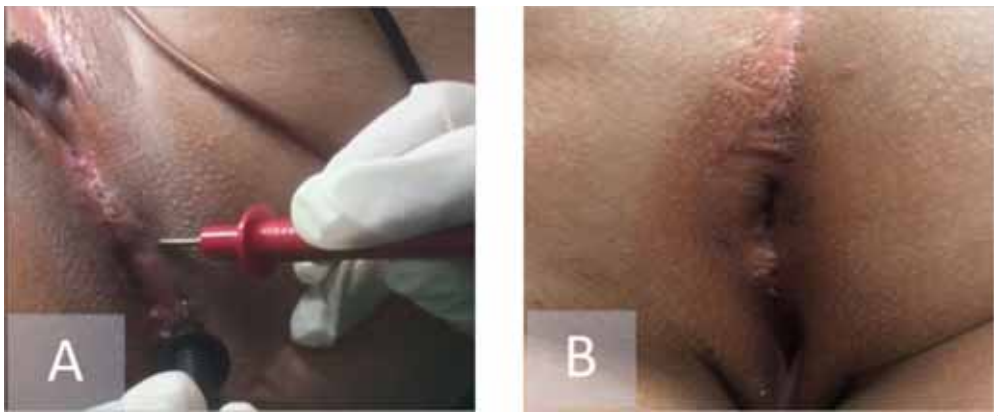

Fig. 4.

muscle. We used electrical stimulation to determine the margins of sphincter and dividing the sphincter mechanism exactly in the middle to distribute the sphincter mechanism equally to both sides. The rectum was dissected from the vagina. Dilated rectum was tailored to reduce the diameter by a linear cutter (NTLC 755,Ethicon, US LLC). The borders of the sphincter mechanism were determined with the help of an electrical stimulator and marked with temporary sutures. The perineal body was created by bringing the anterior boundaries of the sphincter together.

The rectum was placed just behind the perineal body within the sphincter. The posterior edges of the muscle complex and the levator muscle were sutured in the midline with 3-0 vicryl (Vicryl®, Ethicon) sutures passing through the seromuscular layer of the rectum. The ischiorectal fossa and subcutaneous tissue were closed using 4-0 vicryl (Vicryl®, Ethicon) sutures.

Circumferential anoplasty is completed with interrupted 3-0 vicryl sutures (Vicryl®, Ethicon) (Fig. 3).

Due to anal stenosis anal dilatation performed two times within a two months period after second operation and two months later colostomy was closed after radiologic and physiologic examinations (Fig. 4). Postoperative course of all operations were uneventful and patient discharged from hospital without any complication. During last clinical visit one year after PSARP patient have voluntary bowel movements and Cleveland Clinic Incontinence score was 1 (Fig. 4).

Discussion

Anorectal malformations diagnosed during adulthood are rare conditions. Technically these operations may be challenging and more difficult than pediatric patient's interventions due to anatomic and physiologic changes occurred by age [1,5]. Other accompanying genitourinary or spinal abnormalities can make the treatment more problematic [2,6].

Moreover, general surgeons may not be familiar to these anorectal malformations and techniques for reconstruction. Rectovestibular fistula is the most common anorectal malformation in women. The diagnosis of rectovestibular fistula can be easily made with a careful perineal examination. However, many patients are mistakenly diagnosed with a "rectovaginal fistula".

A rectovestibular fistula is a malformation in which the rectum opens into the vestibule of the female genitalia. In rectovaginal fistula, the fistula opens proximal to the hymen. Hymen is normal in patients with vestibular fistula and the anal opening is posterior to the hymen.

Posterior sagittal anorectoplasty may provide excellent cosmetic and functional results in patients with rectovestibular fistula.

Meticulous preoperative examination, correct identification of pathology, precise dissection and multidisciplinary approach may provide good cosmetic and functional results following the same principles which applied to pediatric patients.

Riassunto

Le malformazioni anorettali sono anomalie congenite comuni ma diagnosi e trattamento in età adulta sono piuttosto rari. Il trattamento durante l'età adulta può essere difficile a causa di cambiamenti anatomici e fisiologici. L'anorectoplastica sagittale posteriore può fornire buoni risultati estetici e funzionali anche in pazienti adulti.

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