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Clinical Varieties of Rectocele

Mohamed Nabih EL-Gharib

Professor of Obstetrics & Gynecology, Faculty of Medicine, Tanta University, Egypt.

mohgharib2@hotmail.com

***Corresponding Author:** Mohamed Nabih EL-Gharib, Professor of Obstetrics & Gynecology, Faculty of Medicine Tanta University, Egypt.*

Abstract

Rectocele is an important item in gynecology, in spite of this information regarding its etiology and clinical forms are missing. This article aims at unveiling the information.

Keywords: *Rectocele, rectal wall herniations, perineocele.*

A rectocele is a herniation of the anterior rectal wall (> cm in diameter) into the vaginal cavity and at times through the vaginal introitus. This anatomic distortion results from loss of the unity of the intervening rectovaginal fascia. [1]

The presence or absence of rectovaginal septum has been argued for well over 100 years. Some writers deny the being of a rectovaginal septum, [2 & 3] and others conceive that a rectovaginal septum exists. [4]

Goff, in his classic paper, defined 2 types of fascia, an areolar type, which surrounds viscera, blood vessels, and nerves, and a denser type, which sheathes and unites voluntary muscles of the body. Goff describes "the posterior vaginal wall will be loosely tied to the rampart of the rectum from above downward to the level at which the rectum begins to work backward to become the anal channel. At this stage the rectal and vaginal walls become very firmly united." [2]

The term "rectovaginal fascia," implying the presence of an actual "fascial" layer between the posterior vaginal wall and anterior rectum. This layer is often also referred to as the rectovaginal septum or Denonvilliers fascia, which was described as a peritoneal remnant extending for 2 to 3 cm proximal to the perineal body and absent above the level of the posterior cul de sac.[4]

In 1968, Miley and Nichols published their findings on the rectovaginal septum. They evaluated surgical specimens, fixed and unfixed cadavers, and fetal material. They concluded the rectovaginal septum is a constant and normal structure in the human female. Histologically, the dissected rectovaginal septum consisted of a "fibro-muscular, flexible layer of dense collagen, abundant smooth muscle and elastic fibers as shown in figure (1& 2)."[5]

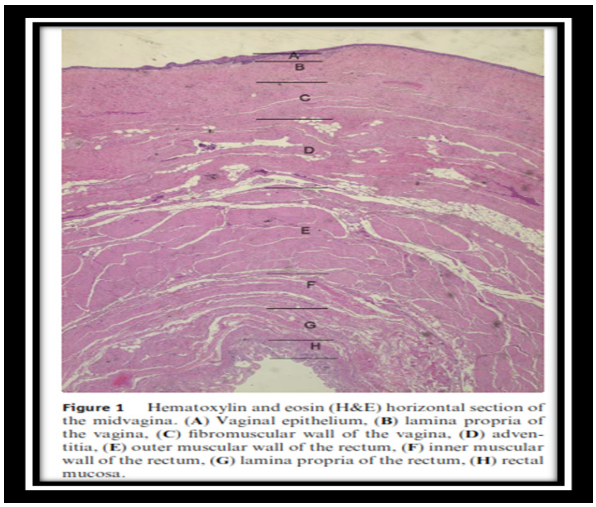

Figure 1 Hematoxylin and eosin (H&E) horizontal section of the midvagina. **(A)** Vaginal epithelium, **(B)** lamina propria of the vagina, **(C)** fibromuscular wall of the vagina, **(D)** adventitia, **(E)** outer muscular wall of the rectum, **(F)** inner muscular wall of the rectum, **(G)** lamina propria of the rectum, **(H)** rectal mucosa.

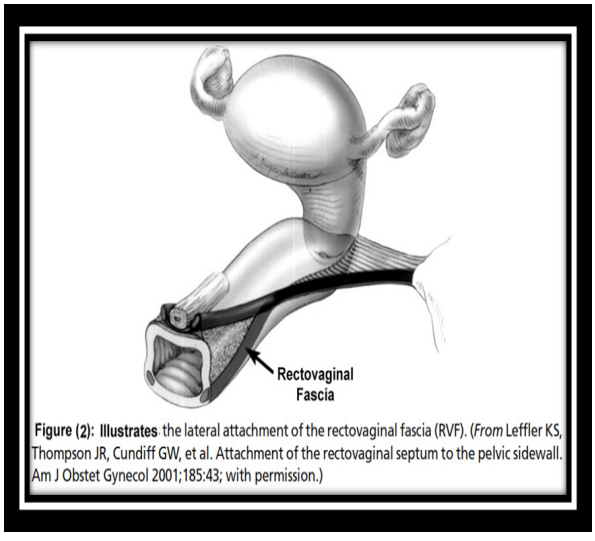

Figure (2): Illustrates the lateral attachment of the rectovaginal fascia (RVF). (*From* Leffler KS, Thompson JR, Cundiff GW, et al. Attachment of the rectovaginal septum to the pelvic sidewall. Am J Obstet Gynecol 2001;185:43; with permission.)

Kleeman and associated stated that histologically, there is no evidence of a distinct fascial layer between the posterior vaginal wall and anterior wall of the rectum. Clinically, it is the splitting of the adventitia and fibromuscular layers of the vagina that are used in defect-specific rectocele repairs to support the anterior rectal wall. [6]

Defects in the musculature providing the posterior support of the rectum is called **posterior rectocele** or perineal herniation (see figure 3). It occurs as a result of posterior levator defects with perineal body attenuation, separation of the transverse perineal and anal sphincter musculature. It is also referred to as perineocele or perineal hernia. It is a hernia between the rectum and the vagina. Plain radiographs of the pelvis and barium enema are able to demonstrate bowel within the hernia sac. The relief of symptoms and correction of the anatomic defect can be achieved by approximation of these structures. [7]

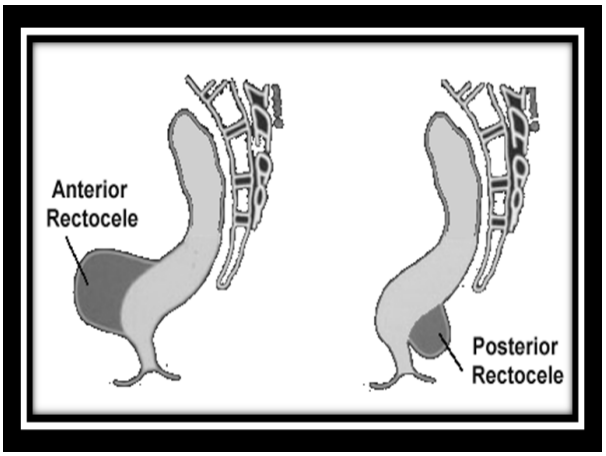

Figure 3. *Demonstrates types of rectocele.*

Rectocele may cause mild to severe anorectal symptoms that are usually associated with chronic constipation. It is probable that straining aggravates the rectocele, enlarges it, and makes evacuation even more unwieldy. [8] In patients with rectocele and paradoxical sphincter reaction, defecation has to occur through the unrelaxed pelvic floor. [9]

The treatment of rectocele ≥ 4m in diameter is surgical. There are three surgical method: posterior Colpoperineorrhaphy, site specific repair and insertion of mesh. Posterior colporrhaphy was born of the early 19th century surgeons' efforts to cure complete tears of the perineum. [10] Simon, was the surgeon who coined the term posterior colporrhaphy in 1867. [11] In 1870 Hegar applied the same concept to the perineum in introducing colpoperineorrhaphy, with the classic triangular denudation of the pineal body that created a tight interracial band within the vaginal introitus. Colpoperineorrhaphy was used to treat not only rectoceles but all kinds of pelvic organ prolapse. Gradually surgeons developed anatomic concepts to suit their empirical surgical methods, asserting that the main support of the uterus was the vagina, which in turn was supported by the insertion of the levator ani muscles into the perineal body. This concept was the basis for the incorporation of plication of the levator ani muscles into colpoperineorrhaphy, which was believed to strengthen the normal uterine support. Thus the surgical goals of of posterior colpoperiorraphy is to enforce the uterine supports. [10]

A comparatively new course in laparoscopic repair of rectocele involves laparoscopic attaching a porcine-derived mesh to the puborectalis muscle, instead of performing the conventional posterior myorraphy. The attachment is driven low to reach the ischial spine, allowing complete reparation of rectocole. [12]

Posterior colporraphy, site-specific repair and insertion of a mesh result in similar anatomic and functional results. All 3 methods of rectocele repairs result in material improvements in symptoms, quality of life, and sexual function. [13]

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