Clinical Notes

Large cyst in the clitoris

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Remnants of the mesonephric or Wolffian system may persist in the adjacent area to the ovary. This ductal system runs anterolaterally toward the vaginal wall and in rare cases between the anterior vaginal wall and the urethra. Mucous (dysontogenetic) cysts arise from the minor vestibular gland, or from the mesonephric duct remnants, and may be found at the introitus and labia minora.

Clinically, cysts of embryonic origin are similar. Vaginal cysts of embryonic origin are most commonly from mesonephric and paramesonephric origin. Developmental cysts of the vestibule are most often derived from urogenital sinus epithelium. During embryonic development, these ducts normally become atretic and lose their glandular linings. If parts of the ducts persist and remain functional, secretory activity gives rise to cystic tumors.

A 24-year-old female was referred to the Gynecology clinic due to a painful large mass with a diameter of 12 x 8 cm in the vulvar region (**Figure 1**). Two years ago, she had noticed a painless mass approximately 2 x 3 cm in the clitorial region, which has gradually increased in size and became painful during the previous 6 months, especially the last month. On physical examination, a cystic mass extended from the clitorial region into the labia minora, and it has a diameter of 12 x 8 cm with minimal tenderness. There was no ulceration. She had regular menses, and her prior clinical record was unremarkable. She was a nullipara and had married 6 months ago. Urological consultation and cystoscopy was unremarkable. There was no relationship between the mass and the urethra. She was scheduled for surgery with frozen section examination. In the first step, a thick chocolate colored fluid was aspirated from the cyst and histopathologic examination of the frozen section of the excised cyst wall was normal.

The cyst was excised and vulvar anatomy restored to its natural form as much as possible. On microscopic examination, there was a cyst wall structure with severe chronic inflammation containing plasma cell, places covered by flat pseudostratified columnar ciliated epithelium. In some points are numerous foci of hemosiderin deposition. Congenital cystic lesions of the female genitalia are uncommon. Merlob et al[1] reviewed

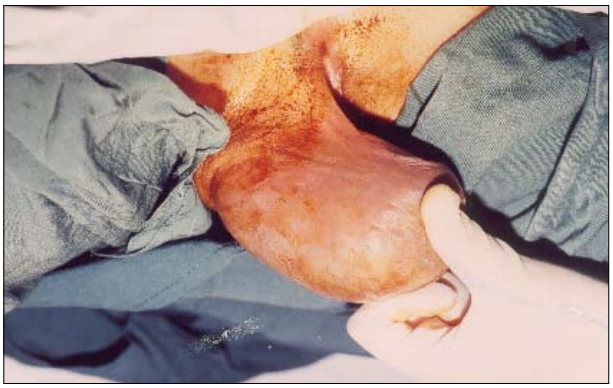

Figure 1 - A large clitorial cyst.

female births in a 2-year period and noted 19 cystic lesions in 3026 female newborns (0.6%). Only one patient had a clitorial cyst.[1] Embryologically, these cysts are related to paraovarian cysts of mesonephric origin. A second variety of embryonic cyst, clinically indistinguishable from Gartner's duct cyst, and arising from vestiges of the paramesonephric ducts are called "paramesonephric cyst", which can have mucinous or ciliated linings. A third variety of embryonic cyst involving the vestibule of the vulva, are the mucous cyst of urogenital sinus origin.[2] Glands lined by either mucinous or ciliated epithelium are normal, constituents of the vulvar vestibule and are derived from the urogenital sinus. The vestibule is formed from the confluence of cells forming the urogenital groove (ectoderm) and those of the urogenital sinus (endoderm). The mullerian mesoderm does not contribute to this formation.[3]

The morphology of cysts found in the vestibule resembles, the Bartholin's cyst, and paraurethral systems both of which are of urogenital sinus origin. Since the gross appearance and symptoms of paramesonephric, mesonephric, and mucinous cysts are not sufficiently characteristic, the precise origin is not of major clinical importance. Most embryonic cysts of the vulva are located in the hymen, vestibule, labia minora, and periclitorial tissues; they are usually solitary, superficial, and thin walled. As a rule, embryonic cysts are smaller than 3 cm in diameter; although, a few may reach 10 cm. Developmental cysts are seldom seen in the labium major. Carcinoma or infection is exceedingly rare.[3] Most mesonephric cysts are lined by non ciliated cuboidal, or by low columnar epithelium that may have a demonstrable basement membrane. Occasionally, a partial lining of squamous epithelium is observed.

Traditionally, mesonephric duct cysts have been distinguished from cysts of paramesonephric origin

on the basis of finding a basement membrane and by the presence of smooth muscle surrounding the lining epithelium.[4] Paramesonephric cysts may be lined by any of the epithelial linings derive from the Mullerian ducts (endocervical, endometrial, or fallopian tube). Endocervical type epithelium is most commonly found on the vulva. Mucous cysts of urogenital sinus origin are usually lined by a single layer of tall columnar epithelium.

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