Case Report

Paraurethral Cyst in a Newborn: Case Report and Discussion

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A B S T R A C T

Background: Paraurethral cyst is a rare cause of interlabial mass in neonates with an incidence of 1 in every 2000-7000 live births and represents less than 0.5% of congenital malformations of the urinary tract.
Case: We report the case of a paraurethral cyst in a neonate, which regressed spontaneously during follow-up without complications.
Summary and Conclusion: Paraurethral cyst should be considered in the differential diagnosis of interlabial masses in newborns. Because of the high probability of spontaneous regression, expectant management appears to represent the management of choice.
Key Words: Paraurethral cyst, Interlabial mass, Neonates, Expectant management

Introduction

Paraurethral cyst (also commonly known as Skene duct cyst) is a rare cause of interlabial mass in neonates, with an incidence of 1 in every 2000-7000 live births and represents less than 0.5% of congenital malformations of the urinary tract.[1,2] However, the true incidence is probably higher than reported in the literature because many go unnoticed. The exact etiology remains unknown. Dislocation of urothelium from the sinus urogenitalis to the adjacent areas, inflammation of paraurethral glands caused by obstruction of the glandular duct, and cystic degeneration of embryonic remnants of the paraurethral glands are some of the proposed theories.[3,4] Exposure to maternal female hormones, which induce glandular secretion, might also play a role in the formation of paraurethral cysts.[3,4] Paraurethral glands are homologous with the prostate gland and secrete a mucoid material during sexual stimulation into the distal two-thirds of the urethra near the urethral meatus.[3,4]

We report the case of a paraurethral cyst in a neonate, which regressed spontaneously during follow-up without complications.

Case

A female infant was born to a 35-year-old mother by vaginal delivery at 40 weeks' gestation. The mother was infertile because of polycystic ovary syndrome and became pregnant after undergoing ovarian stimulation with clomiphene. The pregnancy was uneventful but cesarean section was performed because of breech presentation. Clinical examination of the neonate revealed an interlabial cystic mass, approximately 15 mm in diameter, which was spherical and whitish in color, with dilated blood vessels on its surface (Fig. 1). Catheterization of the urethra was performed; the cyst was located on the right side of the urethral meatus and the urethra was deviated to the left side. There was no urinary obstruction. The remainder of the examination was normal. Abdominal ultrasonography showed a round cystic mass adjacent to the urethral orifice with no other urogenital abnormalities. Vaginal patency was observed in the clinical examination and confirmed in abdominal ultrasonography, which revealed a linear vagina with absence of fluid collection, suggestive of normal vaginal patency. The patient received expectant management. At 1 month, partial regression of the cyst was observed (diameter of the cyst, 8 mm). At 3 months, spontaneous resolution had occurred.

Summary and Conclusion

In neonates, paraurethral cysts generally present as an asymptomatic, small (average size, 1-2 cm), bulging, yellow or whitish interlabial mass with small vessels on the surface, located on either side of the urethral meatus.[3,4] The location and the displacement of the urethral meatus by the mass are characteristic of paraurethral cysts.[3,4] Therefore, the diagnosis can be made with physical examination alone.[3,4] However, imaging is essential to exclude complications or associated abnormalities and is mandatory in cases of urinary outflow obstruction.[3,4] Paraurethral cysts contain a milky fluid and needle aspiration followed by contrast radiography might be considered as an alternative to uroradiological examinations.[3,4] Biopsy, when performed, reveals transitional epithelium in the cyst wall.[3,4] Differential diagnosis includes prolapsed ectopic ureterocele, Gardner or Müllerian duct cyst, prolapsed urethra, urethral diverticulum, urethral polyp, imperforate hymen with hydrocolpos, rhabdomyosarcoma of the vagina, vaginal prolapse, condyloma, and congenital lipoma.[3,4]

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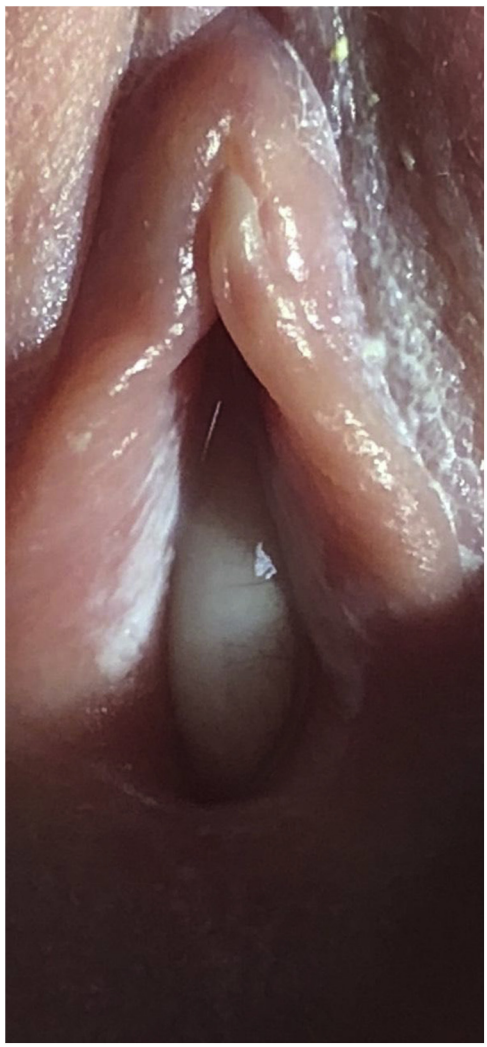

Fig. 1. Paraurethral cyst bulging through the vulva.

Management of paraurethral cysts is controversial.[5,6] Treatment options include observation, needle aspiration, incisional drainage, partial excision, unroofing, and marsupialization.[5,6] Because complete or partial excision and marsupialization are more traumatic options than needle aspiration and incisional drainage, they should be reserved for recurrent cases.[5,6] Expectant management is preferred in asymptomatic cases in newborns, because spontaneous resolution can occur without long-term sequelae or recurrence.[5,6] However, the precise timing of regression cannot be predicted at birth and varies from a few weeks to more than a few months.[5,6] Among 22 cases reported in the literature that were managed conservatively, all showed spontaneous resolution within a time period of 2 days to 2.5 years (mean time to resolution, 5 ± 3 months).[6] Immediate surgical management is required in patients with acute urinary tract obstruction.[5,6] To the best of knowledge, no case of recurrence of a paraurethral cyst has been reported.[1–6]

In conclusion, paraurethral cyst should be considered in the differential diagnosis of interlabial masses in newborns. Because of the high probability of spontaneous regression, expectant management appears to represent the management of choice.

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