

Newborn With Vaginal Cyst

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Abstract

A full-term newborn female was born with a 0.5×0.5 cm golden-colored fluid filled sac at the posterior aspect of the vaginal introitus. Physical examination revealed a patent introitus without additional cysts, a normal positioned urethral meatus, and a patent anus. Stool and voiding occurred in the first 24 hours of life. Hymenal cysts are rare and spontaneously resolve in the first few weeks of life without intervention. Physical examination is important to distinguish hymenal cysts from other interlabial cysts that may require treatment.

Keywords

vaginal, interlabial, hymenal, cyst, newborn

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Case

A full-term newborn female was born via cesarean section to a 37 year old gravida 2 para 2 mother. Delivery was complicated by a 38 cm head circumference, requiring multiple attempts of vacuum assistance. Apgars were 7 and 8 at 1 and 5 minutes respectively with an unremarkable transition to the newborn nursery. Maternal history is significant for uterine didelphys, vesicoureteral reflux in childhood, and papillary thyroid carcinoma diagnosed during pregnancy with planned deferred management until postpartum. On initial physical exam, a 0.5×0.5 cm golden-colored fluid filled sac was noted at the posterior aspect of the vaginal introitus (Figure 1). Further inspection revealed a patent introitus without additional cysts, a normal positioned urethral meatus, and a patent anus. Stool and voiding occurred in the first 24 hours of life. Measurements and photo documentation of the cystic lesion were taken for comparison at a pediatrician visit in 48 hours. Parents were reassured that hymenal cysts typically resolve spontaneously and no treatment is required.

Discussion

Interlabial cysts in the newborn are rare and can often be distinguished by physical exam alone. Clues include location relative to vaginal opening and urethral meatus and general appearance of the mass. Prevalence ranges from 1:1000 to 1:7000, with the

most common types being hymenal cysts and paraurethral cysts presenting as thin-walled golden fluid filled cysts.¹ Differential diagnoses range from hymenal cyst, imperforate hymen with hydrocolpos or mucocolpos, transverse vaginal septum, vaginal agenesis, paraurethral cyst, prolapsed ectopic ureterocele, to sarcoma botryoides.²

Hymenal cysts often present as thin-walled spherical lesions containing golden colored fluid that attach to the hymen.³ They rarely lead to urinary tract obstructions. Most spontaneously resolve over several weeks following birth without intervention.⁴

Congenital vaginal obstructions can be evaluated by inspection for a patent vaginal canal, vaginoscopy, and ultrasonography to evaluate for imperforate hymen, transverse vaginal septum, and vaginal agenesis.^{5–7} Imperforate hymen can also present with a bulging hymenal membrane due to fetal secretions responding to maternal estrogen.⁶ Evaluation of the introitus for multiple cysts, or a grape-like cystic lesion is important for the evaluation of sarcoma botryoides.^{8,9} Biopsy and further treatment would

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Figure 1. Cystic lesion at vaginal introitus.

be necessary to treat this highly malignant rhabdomyosarcoma. Location of the urethral meatus and a normal urinary stream also provide insight to the diagnosis. Paraurethral cysts are separate from, but displace, the urethral meatus causing an abnormal urinary stream. Prolapsed ectopic ureterocele are dilations of the terminal ureter, presenting as light pink cysts that prolapse through the urethra.¹⁰ Imaging of the urinary tract is indicated to determine degree of involvement and guide treatment.

Authors' Note

Patient consent was obtained for publication.

Author Contributions

Brooke E. Willborg contributed to the study design, data collection, and draft manuscript preparation. Vanessa G. Carroll contributed to the study design, data analysis, and draft manuscript edits. Julie Meltzer contributed to the data analysis and draft manuscript edits. All authors reviewed the results and approved the final version of the manuscript.

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