Bartholin's gland abscess in a neonate: a case report

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Abstract

Bartholin's gland abscesses are extremely rare in prepubertal girls. A literature search revealed that only 3 cases have been reported in infancy and that 1 case has been reported in a neonate. We report the second case of a Bartholin's gland abscess in a female neonate.

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Case Report

A 1-month-old girl born at term by spontaneous vaginal delivery after an uncomplicated pregnancy presented to us with left labial swelling. Prior to presentation, she was healthy and developing normally. Her mother denied having any vaginal discharge or infections while pregnant. The girl was well until 4 days prior to presentation, when her parents discovered a left labial bulge. The bulge had not changed in size over these 4 days. The patient was treated empirically by her pediatrician with clavulanic acid and amoxillin, without improvement.

On clinical examination, she was calm, alert and looked well. She weighed 6.1 kg. The patient was afebrile with normal vital signs. There were no changes in her voiding frequency, and her bowel function was normal. Abdominal examination revealed a soft, lax abdomen without tenderness or masses. A soft, cystic, erythematous and tender left labial swelling was present. The swelling involved most of the left labia and extended to the level of the urethra. There was deep extension laterally that could be felt between the labia majora and minora (Fig. 1). The patient's clitoris and urethral meatus were normal. She had no vaginal discharge or bleeding.

Fig. 1. A 1-month-old female presented with swelling involving most of the left labia.

Laboratory studies revealed a hemoglobin level of 11 g/dL and a white blood cell count of 0.009×10^9/L. A perineal ultrasound (Fig. 2) demonstrated a 2.2- × 1.3-cm well-delineated cystic lesion with hypo to anechoic content at the level of the medial aspect of the left major labial fold, without communication to the peritoneum. Doppler flow assessment demonstrated peripheral vascularity but no evidence of flow within the lesion itself.

Aspiration of the swelling was performed and revealed pus. In an outpatient setting, we performed a cruciate incision without anesthesia and drained a large amount of pus. Bacterial culture of the aspirated fluid was negative. The patient continued to receive orally administered amoxicillin for 5 days.

The patient was reevaluated 1 week after drainage. She was clinically well and, on examination, the swelling, erythema and tenderness had resolved, with only mild residual induration remaining on the inner surface of the left labia. Follow-up 5 months later showed no recurrence or labial abnormality.

Discussion

Bartholin's glands are outgrowths of the urogenital sinus and are analogous to Cowper's glands in the male. Their main function is to provide lubrication for sexual intercourse. A Bartholin's gland cyst is a cystic enlarge-

ment of the gland that develops from a blockage of one of the Bartholin's ducts as a result of a genital infection, inflammation or thickened mucus. A painless lump in the vulva area is the most common presenting sign. When a Bartholin's gland cyst becomes infected, it forms an abscess that is typically quite painful. An infected cyst should be drained and treated with antibiotics. Recurrent Bartholin's gland abscesses can be treated by surgical removal of the gland and duct.

Bartholin's gland cysts and abscesses are commonly found in women of reproductive age and develop in approximately 2% of all women. They are exceedingly rare before puberty.[1,2] Owing to this, Bartholin's gland abscesses are often excluded as a part of the differential diagnosis of labial masses in the pediatric age group.[2,3]

Only 1 prior case of a Bartholin's gland abscess in a neonate has been reported in the literature.[4] The neonate was 3 days old. Her mother was diagnosed with *Trichomonas vaginalis* during the last month of pregnancy and she was treated with metronidazole. Incisional drainage was performed on the neonate. The cultures grew *Escherichia coli* and the child was treated with antimicrobial therapy. Three additional cases of Bartholin's gland abscesses in infancy have been reported. Schauffler and colleagues reported a similar case in a girl aged 6.5 weeks in 1939.[5] The infant had no evidence of vulvovaginitis and responded well to incisional drainage, without the need for additional antibiotics. Kubitz and colleagues reported the case of a 5-week-old female infant.[3] Cultures of cervical swabs from the infant's mother grew neisseria gonorrhea and chlamydia. She was treated with procaine penicillin and probenecid, followed by tetracycline. Seventy-two hours after the initial gynecological evaluation, the infant's mass spontaneously drained purulent material. Cultures revealed *Escherichia coli* and a *Peptococcus*. The infant was treated with cleansing of the abscess cavity with hydrogen peroxide followed by topical application of sulfanilamide cream (AVC). Ernst and colleagues reported the case of a 3-month-old girl.[6] Incisional drainage and cultures of the pus from her abscess grew *Escherichia coli* and *Klebsiella pneumonia*.

We report the second case of a Bartholin's gland abscess in a neonate. The child was initially treated with amoxicillin and clavulanic acid, followed by drainage. Amoxicillin was continued for 5 days after the drainage. Bacterial cultures from the aspirate were negative, most likely as a result of the initial antibiotic treatment. There was no evidence of venereal disease in either the patient or her mother.

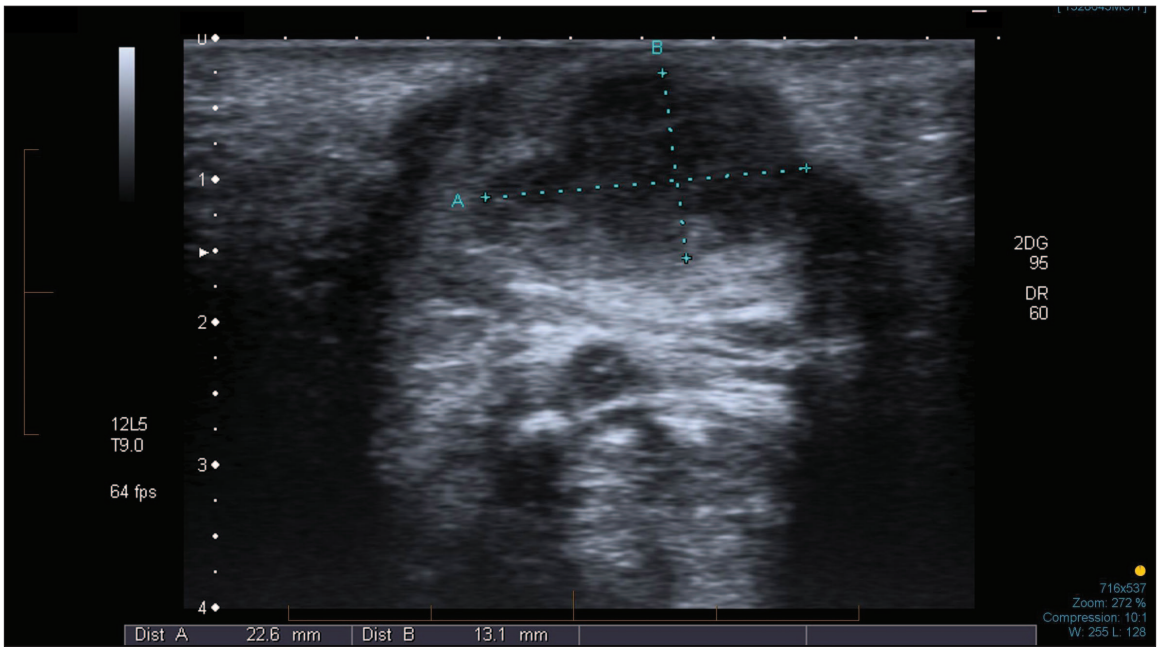

Fig. 2. A perineal ultrasound shows a 2.2- × 1.3-cm well-delineated cystic lesion with hypo to anechoic content at the level of the medial aspect of the left major labial fold.

Labial swelling in a prepubertal female may result from several conditions, including hydrocele of the canal of Nuck, indirect inguinal hernia, meconium hydrocele, congenital labial cyst, epidermoid cyst, estrogenic effects, lipoma, leiomyoma, teratoma, sarcoma or lymphangioma. All of these conditions are relatively rare, and in most texts, a Bartholin's gland abscess is not included as a potential cause of such swelling.[2] A Bartholin's gland abscess typically presents as a tender cystic swelling in the labial region. Patients do not have fever, nausea or vomiting. If possible, an infant with such symptoms should be examined in the supine and in the upright position. If swelling is apparent in the upright position and disappears while the patient is supine, the swelling is more likely a hernia.[7]

Sonography of the groin is an easy and accurate preoperative procedure. The final diagnosis is made during surgery. Incisional drainage with postdrainage antibiotics should be considered the treatment of choice.

Conclusion

Although Bartholin's gland abscesses are uncommon among the pediatric age group, the case described above indicates that it should be considered in any newborn girl with labial enlargement. The abscess may involve the entire labial region and may not remain localized to the lower aspect of the labia, as often seen in mature females.

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