

Bartholin's gland abscess – a rarity in infants and children

Author(s): Jitendra K. Singh, Arunagiri Viruthagiri, Jagdish Sadasivan

Vol. 14, No. 1 (2010-01 - 2010-06)

Jitendra K. Singh, Arunagiri Viruthagiri, Jagdish Sadasivan

Department of Pediatric Surgery, Jawaharlal Institute of Medical Education and Research (JIPMER)
Dhanwantarinagar, Pondicherry, India

Abstract

Bartholin's gland cyst and abscesses are exceedingly rare in females before puberty. Authors report a case of Bartholin's gland abscess in a three month old female child along with review of the literature.

Key words: Bartholin's gland, abscess, children
Accepted July 13 2009

Introduction

Bartholin's gland cysts and abscesses are common problems in women of reproductive age. Two percent of women develop a Bartholin's duct cyst or abscess at sometime in life [1]. They are exceedingly rare before puberty. Authors report a case of Bartholin's gland abscess in a 3 month old female child. The management of the condition is briefly outlined along with a review of the literature.

Case report

A second born three month old full term female child pre-sented to us with history of labial swelling for five days. There was no history of urinary tract infection, any vulvar discharge, voiding disturbance or trauma. Her perinatal period was uneventful. There was no history of any vaginal discharge or infection during pregnancy to the mother.

On examination, the child was calm, afebrile with normal vital signs. Local examination revealed a tender, soft, fluctuant, and erythematous swelling in lower half of right labia minora. (Fig. 1) There was deep extension laterally that could be felt between the labia majora and minora. Clitoris and urethral meatus were normal. Clinically, the swelling appears to be an abscess hence no further investigation was done. Aspiration of the swelling revealed pus. Incision (cruciate incision) and drainage under local anesthesia was performed in an outpatient setting and approximately 5 ml. of thick pus evacuated. Bacterial culture of pus has shown growth of E.coli. Child was put on oral antibiotics for 5 days along with sitz bath. The patient was reevaluated after 1 week, erythema and tenderness resolved and the wound was healing well.



Fig 1: Three month old female with swelling involving the lower half of right labia

Discussion

Bartholin's glands are bilateral vulvovaginal bodies located in the labia minora at approximately 4 and 8 o'clock position on the posterolateral aspect of the vestibule. These are homologous to Cowper's gland in males. At puberty, these glands begin to function providing moisture for the vestibule but are not needed for sexual lubrication. Obstruction of the distal Bartholin's duct may result in the retention of secretions, with resultant dilatation of the duct and formation of a cyst. The cyst may become infected and an abscess may develop in the gland. However a Bartholin's duct cyst does not necessarily have to be present before gland abscesses develop [2].

Table 1: Reported cases of Bartholin's gland abscess in children

S.N.	Authors	Age	Treatment	Pus culture	Maternal genital infections
1	Chavarria et al.	3 days	I&D with Antibiotics	E.Coli	T.vaginalis
2	Kady et al.	30 days	I&D with Antibiotics	-	NIL
3	Kubitz et al.	5 weeks	Spontaneous rupture with antibiotics	E.Coli, Peptococcus	N.gonorrhoea & Chlamydia
4	Schauffler et al.	6.5 weeks	I&D without Antibiotics	-	NIL
5	Emst et al.	3 months	I&D with Antibiotics	E.Coli, K. pneumonia	NIL
6	Present case	3 months	I&D with Antibiotics	E.Coli	NIL

A painless lump in the vulval area is the most common presenting sign, however Bartholin's abscess is quite painful. Classically, Bartholin's gland abscess is localized to the lower part of the labia in contrast to the labial abscess which presents as a firm, tender unilateral mass arising from the upper portion of the labia minora including the clitoral hood. Usually, the infection is polymicrobial and requires broad spectrum antibiotics.

Bartholin's duct cyst and gland abscess must be differentiated from other vulvar masses. The differential diagnosis of labial swelling in prepubertal females includes inguinal hernia, hydrocele of the canal of nuck, epidermal inclusion cyst (sebaceous cyst), dysontogenic cyst, hematoma, lipoma, leiomyoma, teratoma, sarcoma and lymphangioma.

To best of our knowledge, a total of 5 cases of Bartholin's gland abscess have been reported in pediatric patients [3-7]. [Table] Associated venereal disease may be present in the mother but definitely it is not the cause of the abscess as E.Coli and Kleibseilla are the common organisms grown in pus culture.

Treatment options available for Bartholin's gland abscess in adults are – aspiration and alcohol sclerotherapy [8], curettage of the abscess cavity, placement of word catheter, application of silver nitrate to the abscess cavity, carbon dioxide laser excision and surgical excision. However, excision is not preferred as primary choice due to the risk of hemorrhage. Although simple incision and drainage (I&D) in adult patients is associated with recurrence, however the clinical course of the index case as well as other reported in literature shows that simple I&D works well in pediatric patients with no evidence of reported recurrence.

To conclude, Bartholin's duct cyst and abscess, although rare, should be included in the differential diagnosis of labial swellings in prepubertal females and simple I&D with antibiotics work well in pediatric patients.

References

1. Kanfman RH. Benign diseases of the vulva and vagina. 4th ed. St Louis: Mosby 1994:168-248.
2. Wilkinson EJ, Stone IK. Atlas of vulvar disease. 5th ed. Baltimore: Williams & Wilkins, 1995:11-15.
3. Chavarria JF, Faingezicht I. Bartholin's gland abscess in a neonate. *Pediatr Infect Dis J* 1989; 8:334-35.
4. Kady SE, Zaharani AA, Jednak R, Sherbiny ME. Bartholins gland abscess in a neonate: a case report. *CUAJ* 2007; 1:117-19.
5. Kubitz R, Hoffman K. Bartholin's gland abscess in an infant – a case report. *J Reprod Med* 1986; 31:67-69.
6. Schauffler GC, Reinhold K, Schauffler C. Management of 256 cases of infection of immature vagina. *JAMA* 1939; 112:415- 18.
7. Emst EA, Weller P, Karch SB. Bartholins gland ab-scess in infancy. *Pediatr Infect Dis J* 1988; 7:526-27.
8. Kafali H, Yurtseven S, Ozardali I. Aspiration and alcohol sclerotherapy: a novel method for management of Bartholins cyst and abscess. *Eur J Obstet Gynecol Reprod Biol* 2004; 112:98-101.

Correspondence:

Jitendra K. Singh

Department of Pediatric Surgery

Jawaharlal Institute of Medical Education and Research (JIPMER)

Dhanwantari Nagar, Pondicherry 605006, India

E-mail: drjitendrakumarsingh(at)gmail.com

Curr Pediatr Res 2010; 14 (1): 63-64