



## Case report

## Bartholin's gland abscess in a prepubertal female: A case report

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## ABSTRACT

*Bartholin's gland abscess* is one of the common afflictions of vulva seen in females of reproductive age group with a recurrence rate of up to 38%. Although it's encountered by many Paediatric Surgeons, it's very rarely reported in prepubertal age. Till date, only six cases have been reported to the best of our knowledge.

A seven-year-old female child presented with a recurrent labial abscess. She was found to have Bartholin's gland abscess and was treated with partial excision of cyst wall along with the overlying mucosa and drainage. There has been no recurrence for the past six months at follow-up.

Bartholin's gland abscess, although rare in children, should be considered as one of the differential diagnosis of a labial swelling. Adequate drainage is essential to prevent recurrence.

## 1. Introduction

Bartholin's gland abscess is a common vulval pathology affecting the females of reproductive age group [1]. There is a two percent lifetime risk of Bartholin's gland abscess in females [1]. But they are very rare in prepubertal age with only six cases have been reported in the literature till date. Bartholin's gland abscess has been reported to have a recurrence up to 38% [2]. A seven-year-old female presented to our institution (a tertiary center) with a recurrent labial abscess; she was diagnosed to have a recurrent Bartholin's gland abscess and was treated with partial excision of the cyst wall along with the overlying mucosa and drainage. This work has been reported in line with the SCARE criteria [3].

## 2. Case report

A seven-year-old female presented with complaints of swelling and pain in the labia for four days. She had a low-grade fever. There was no history of discharge from the swelling or the vulva. There was no history of trauma. She had similar complaints two months ago, for which an incision was made and pus was drained.

On examination, a soft, fluctuant, tender swelling measuring about 4 cm × 4 cm was present in the labia from 6 O' clock to 12 O' clock position. There was a linear scar over the swelling on the skin surface (Fig. 1). She was diagnosed as a recurrent right Bartholin's gland abscess. She was initiated on IV cefotaxime and posted for surgery. Routine investigations were normal.

She underwent incision and drainage of the abscess under the

general anaesthesia. A junior consultant performed the procedure. He approached the abscess from the mucosal aspect, excised a wedge of the wall of the cyst along with the overlying mucosa. She was started on sitz bath and discharged home on the next day with oral antibiotics. Pus culture showed no growth. Post-operative period was uneventful. There has been no recurrence over a period of six months at follow-up.

Consent has been obtained from the parents of the patient for possible publication of this case report.

## 3. Discussion

The Bartholin's glands are a pair of exocrine glands, located at 4 O' clock and 8 O' clock position in the labia minora. They resemble salivary glands in structure. They are similar to Cowper's glands in males. They secrete colorless, mucoid discharge on sexual excitation which moisturizes the vestibule. They begin to function at puberty [2].

An obstruction to the Bartholin's duct leads to stasis of secretion, dilatation of the gland and cyst formation. The cyst may get infected forming an abscess. However, Bartholin's gland abscess can occur without a pre-existing cyst [4], as happened in our patient.

Bartholin's gland abscess presents with a swelling in the vulva associated with pain and fever. On examination, an erythematous, localized, tender, soft, fluctuant swelling would be present in the labia minora. This is usually polymicrobial warranting broad-spectrum antibiotics [1,2,4]. If not treated in time, it can rupture spontaneously but tends to recur [4].

The differential diagnosis includes hematoma, infected inguinal hernia or hydrocele of the canal of Nuck, infected lymphangioma,

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Fig. 1. Right Bartholin's gland abscess. A linear scar of previous incision is seen.

**Table 1**  
All cases of Bartholin's gland abscess in prepubertal females.

Sl No.	Author	Age	Treatment	Isolated organism(s)
1	Kubitz et al.	1 month	Antibiotics (Spontaneously ruptured)	<i>E. Coli</i> , peptococcus
2	Kady et al.	1 month	I & D with Antibiotics	–
3	Chavarria et al.	3 days	I & D with Antibiotics	<i>E. Coli</i>
4	Emst et al.	3 months	I & D with Antibiotics	<i>E. Coli</i> , <i>K. pneumoniae</i>
5	Schauffler et al.	7 weeks	I & D with Antibiotics	–
6	Singh et al.	3 months	I & D with Antibiotics	<i>E. Coli</i>
7	Present case	7 years	I & D with Antibiotics	No growth

leiomyoma, lipoma, teratoma and sarcoma [4].

Bartholin's gland abscess is notoriously known for its recurrence with up to 38% recurrence rate reported in the literature [2]. As we have already described, an obstruction is the main contributing factor for Bartholin gland abscess formation. So a simple incision and drainage lead to the approximation of Bartholin cyst wall and the recurrence of the abscess. We were successful in preventing recurrence by partial excision of cyst wall along with the overlying mucosa, which drains the Bartholin gland secretion. The other options include incision and curettage of the abscess cavity, marsupialization, or placement of a word catheter or a rubber drain [1,4,5]. Although the simple incision and drainage is associated with recurrence in adult patients; there has been no reported case of recurrence in paediatric patients. In our case, the recurrence was probably due to incision at wrong site (on the skin surface rather than the mucosal aspect: Fig. 1).

A literature search revealed that there are currently a total of seven cases (including our patient) of Bartholin's gland abscess reported in the paediatric age group (Table 1). Except for our patient, all reported patients were infants. Six of them underwent incision and drainage. None of them had a recurrence. The commonest causative organism was *E. coli* (Table 1).

#### 4. Conclusion

Bartholin's gland abscess, although rare in children, should be considered as one of the differential diagnosis of a labial swelling. Although simple incision and drainage with broad-spectrum antibiotics are effective in paediatric patients, recurrent cases will require partial excision of cyst wall, marsupialization or placement of a word catheter or a rubber drain.

#### Ethical approval

It's a case report. No study was conducted. Consent was taken from parents of patient for publication.

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#### Author contribution

1. Veerabhadra Radhakrishna: Concept, design, definition of intellectual content, literature search, data acquisition, manuscript preparation, manuscript editing and manuscript review.
2. Rachit Goel: Concept, design, definition of intellectual content, literature search, data acquisition, manuscript editing and manuscript review.
3. Gaurav Parashar: Concept, design, definition of intellectual content, literature search, data acquisition, manuscript editing and manuscript review.
4. Ramesh Santhanakrishnan: Concept, design, definition of intellectual content, literature search, data acquisition, manuscript editing and manuscript review.

#### Conflicts of interest

The authors have no conflicts of interest relevant to this article to disclose.

#### Guarantor

Veerabhadra Radhakrishna.

#### Financial disclosure

The authors have no financial relationships relevant to this article to disclose.

#### Consent

Informed consent has been obtained from patient for publication.

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