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Penile cyst, presenting as dyspareunia- A case report

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Abstract: *Hidrocystomas, (eccrine and apocrine), are rare cystic lesions that form benign tumors of the sweat glands. Apocrine hidrocystoma is cystic dilatation of apocrine secretory glands. Commonly seen in adults, both sexes are equally affected. Apocrine hidrocystomas mostly occur within the head and neck region and involvement of genitalia is extremely rare. This paper emphasizes the importance of considering the differential diagnosis of a genital cystic lesion. Herein we report a case of para-meatal apocrine hidrocystoma in a 22 year male who presented with complaints of painful coitus. Clinical findings, diagnostic work-up, and follow-up are provided along with a review of the literature on apocrine hidrocystoma.*

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I. Introduction

Penile cysts are uncommon lesions, and in general, they are asymptomatic and usually do not interfere with urinary or sexual function, unless when they are complicated by infection or trauma, an occasional irregularity of the urinary stream encountered in some cases. Penile cysts are classified into, acquired types (or pseudocyst) and true cyst (which are usually congenital). Apocrine hidrocystomas (cystadenomas) are cystic cutaneous neoplasms derived from apocrine sweat glands. It was first described by Mehregan in 1893.They are rare, benign, cystic lesions of sweat gland resulting from proliferation of the apocrine secretory coil or eccrine duct. Although the apocrine glands in humans are mostly distributed in the region of the eyelids, external auditory canal, axilla and on the nipple, apocrine hidrocystoma has also been reported at other sites, such as the shoulder, fingers, and perianal and periumbilical regions. However, it rarely occurs on the genitalia. Though usually asymptomatic , presentation with dyspareunia has not been reported in literature.

II. Case Report

A 24 year old male presented to the surgical clinic with a swelling on the right side of glans penis, which was there since childhood. He also gives history of pain over the swelling during coital act. There were no urinary symptoms other than distortion of the urinary stream.. On examination, a spherical cystic mass which was about 1x1 cm size was found at the external urethral meatus. Our initial diagnosis was 'Parameatal urethral cyst'. Pre-operative cystoscopic evaluation was not done since we were able to catheterise the bladder freely with 16-Fr foley's catheter. The cyst was excised completely under local anaesthesia and the bed was cauterised using bi- polar electrocautery. The patient was advised to continue bladder catheterisation for one week, so as to prevent meatal stenosis.To our surprise the histopathology report came as 'Apocrine Hidrocystoma'. Post-operative period was uneventful and patient has no recurrence on follow up at two months.

Fig 1: Clinical photograph of para-meatal Apocrine Hidrocystoma (Dorsal view)

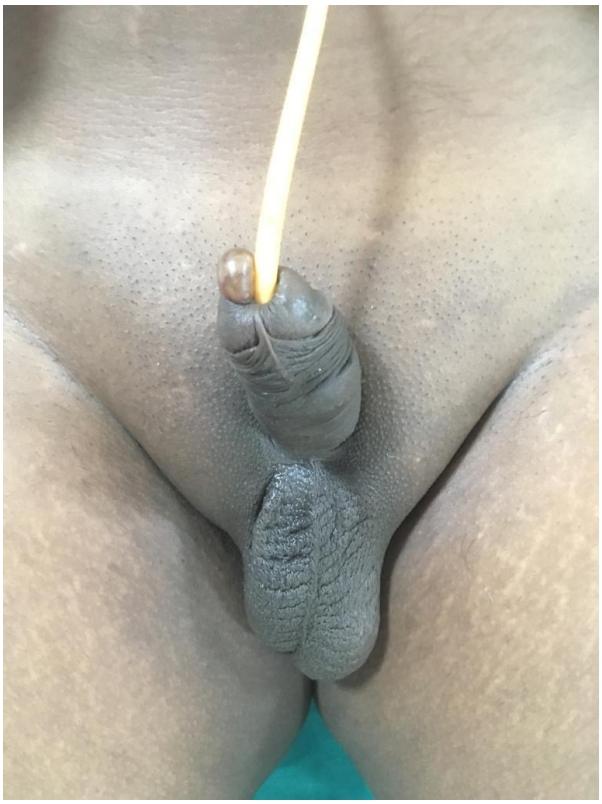

Fig 2: Clinical photograph of Para-meatal Apocrine Hidrocystoma (Dorsal view)

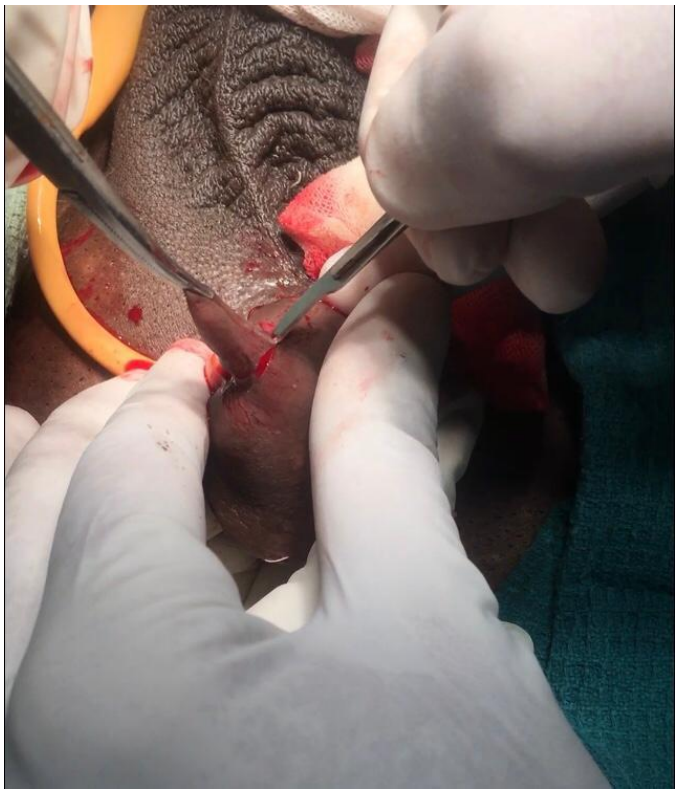

Fig 3: Intra-operative picture showing excision of Apocrine Hidrocystoma

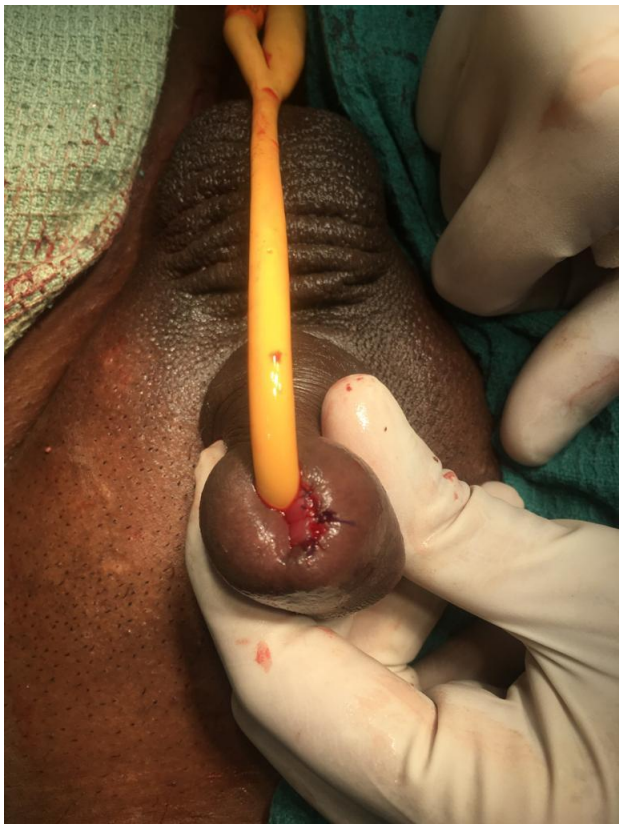

Fig 4: Picture of urethral meatus after excision of Apocrine Hidrocystoma

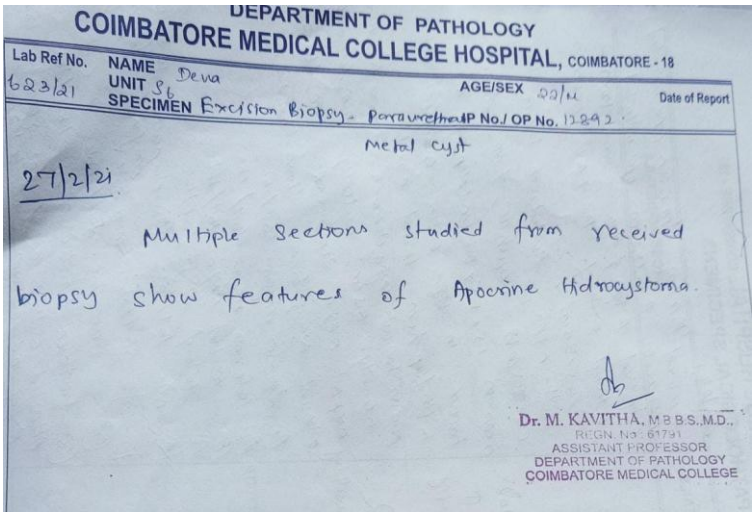
DEPARTMENT OF PATHOLOGY
COIMBATORE MEDICAL COLLEGE HOSPITAL, COIMBATORE - 18
Lab Ref No. 623/21 NAME Deva AGE/SEX 22/M Date of Report
UNIT SB
SPECIMEN Excision Biopsy - Paraurethral P No./ OP No. 12292
Metal cyst
27/2/21
Multiple Sections studied from received biopsy show features of Apocrine Hidrocystoma.
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Fig 5: Histopathology report of excised parameatal cyst which showed features of Apocrine Hidrocystoma.

III. Disscussion

Hidrocystoma is a rare, benign, cystic lesions of the skin – can be either eccrine or apocrine, and are often found on the head and neck region. Eccrine hidrocystomas are small and tense thin-walled cysts, ranging from 1 to 6 mm in diameter, and can occur as single or multiple lesions. They are found predominantly in adult females and are located mostly on the periorbital and malar regions. Apocrine hidrocystoma is cystic dilatation of apocrine secretory glands. It was first described by Mehregan in 1893. Commonly seen in adults, both sexes are equally affected. Skin lesions are asymptomatic. Clinically, it usually occurs singly as a unilocular or multilocular, dome-shaped translucent cyst.These lesions are also found mostly on the head and neck and along the eyelid margin near the inner canthus. Multiple apocrine hidrocystomas are rarely encountered, and are seen in Schopf Schulz Passarge syndrome

The pathophysiology of hidrocystomas is unclear, though many theories exist. The occlusion or blockage of the sweat duct apparatus, which results in the retention of sweat, and a dilated cystic structure, are considered to be possible causes..

When lesions are in the genital area, the differential diagnosis includes eccrine hidrocystoma, congenital cysts of the median raphe, and lymphangioma.Congenital cysts of the median raphae are generally asymptomatic until after puberty and usually becomes apparent secondary to trauma or infection. Parameatal urethral cysts are believed to occur as a result of occlusion of paraurethral ducts. The origin of parameatal urethral cysts from accessory male sex glands in the penile urethra could be demonstrated by detection of prostatic-specific antigen (PSA) in cells of these cysts with the help of immunohistochemistry. Eccrine hidrocystomas can present in an identical fashion but are considered true retention cysts and usually lack secretory epithelium and papillary projections. Histo-chemically they lack periodic acid-Schiff positive granules and are S100 protein positive.

Histo-pathologically, apocrine hidrocystoma appears as unilocular or multilocular cysts composed of an inner layer of single or double layer of secretory columnar epithelium with decapitation secretion lying above an outer myoepithelial cell layer. Immuno histochemically, apocrine hidrocystoma is positive for CK7, CK18 and gross cystic disease fluid protein 15 in the inner layer of epithelium, and alpha-smooth muscle actin and p63 in the outer myoepithelial cells.

The treatment for apocrine hidrocystoma is excision with narrow margins because of the benign nature of the lesion.. Alternative therapies include electrodessication, incision and drainage, simple puncture,Carbon dioxide laser vaporization, daily topical 1% atropine ointment.

IV. Conclusion

Although genital apocrine hidrocystoma is rare, we should be considered in the differential diagnosis of a genital cystic lesion. For cystic lesions in genitalia, the differential diagnosis also includes congenital cysts of the median raphae, eccrine hidrocystoma, sclerosing lymphangitis, and acquired lymphangioma. Though apocrine hidrocystoma are commonly asymptomatic , presentation with dyspareunia has not been reported in literature. Careful surgical excision followed by bladder catheterisation for a week is necessary to prevent meatal stenosis.

CONSENT

The authors would like to thank the patient for providing informed consent for the publication of thiscase report.

CONFLICT OF INTEREST

Authors have no conflict of interest to declare.

AUTHOR CONTRIBUTION

1. Patient management and treatment decisions.
2. Patient management, surgical treatment and manuscript writing.
3. Patient management, manuscript writing.

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