



CASE REPORT

Vulvar Hidradenoma Papilliferum: When Common Symptoms Mask a Rare disease

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ABSTRACT

Background: Chronic pruritus vulvae is a common gynecological complaint most often attributed to infectious, inflammatory, or dermatologic causes. Consequently, management frequently relies on topical treatments, which may delay the identification of less common etiologies. Hidradenoma papilliferum is a rare, benign tumor arising from anogenital mammary-like (apocrine) glands, typically presenting as a small, slow-growing vulvar nodule. Although histologically well-characterized, its clinical diagnosis can be challenging, particularly when lesions are small, asymptomatic on palpation, or partially concealed, leading to misdiagnosis and prolonged patient discomfort. **Case presentation:** We present a 32-year-old single female patient who experienced months of persistent vulvar discomfort, itching, and occasional vaginal discharge that did not respond to multiple courses of systemic and local antibiotics in addition to intermittent topical steroids. Moreover, she received systemic antihistamines to mitigate her symptoms. Physical examination during a second-opinion visit revealed a small (<1 cm), non-tender vulvar nodule. Excision was easily performed under local anesthesia, and histopathology confirmed hidradenoma papilliferum as an uncommon, benign apocrine tumor. Following excision, the symptoms resolved completely, with no recurrence at six-month follow-up. **Conclusions:** Small vulvar lesions such as hidradenoma papilliferum should be included in the differential diagnosis of any case of persistent or refractory pruritus vulvae. Clinically, thorough vulvar palpation in such cases before insertion of a vaginal speculum is mandatory to exclude any external vulvar causative lesion and avoid diagnostic delay. Not all vulvar symptoms are infectious or dermatologic in origin, and early identification of localized lesions can prevent unnecessary treatments and patient frustration.

Keywords: Hidradenoma Papilliferum, Pruritus vulvae, Vulvar, Apocrine, Case report.

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1. INTRODUCTION

Pruritus vulvae is frequently attributed to common causes like candidiasis, dermatologic conditions, or allergic reactions. Persistent symptoms should raise suspicion for uncommon etiologies. Hidradenoma papilliferum (HP) is a rare, benign neoplasm of anogenital mammary-like glands and may present variably as a vulvar nodule, sometimes with pruritus or discharge (1,2). Recent data have uncovered characteristic somatic mutations in the PI3K/AKT pathway, including PIK3CA and PIK3R1, in a majority of cases, highlighting new potential molecular markers for its diagnosis (3). Vulvoscopy is a valuable tool to help magnify and diagnose such vulvar lesions

as used in a previous study (4). It offers more magnification than dermoscopy used by dermatologists (5). This report presents a symptomatic HP case successfully resolved via excision.

2. CASE PRESENTATION

A 32-year-old nulliparous woman sought medical advice for ongoing resistant and persistent vulvar itching, discomfort, and occasional discharge lasting seven months is presented. Relevant medical and gynecological history confirmed the absence of known dermatologic disease, immunosuppression, or prior vulvar surgery. Her symptoms persisted despite repeated negative vaginal microbiological swabs, resulting in multiple courses of empirical treatment prior to referral to our institution. She received repeated courses of systemic and local antibiotics in addition to occasional topical steroids and antifungals. Moreover, she received systemic anti-histamines to mitigate her symptoms. At our clinic, a second-opinion evaluation diagnosed a small (<1 cm) left-sided, firm, and non-tender vulvar nodule felt on the inner aspect of the labia majora. Naked-eye examination and vulvoscopy using saline technique followed by application of acetic acid and Schiller's iodine solution were done and failed to detect vulvar abnormalities. The procedure started by local anesthesia infiltration using lidocaine 1%. A small incision (< 1 cm) was made over the mass followed by its extraction using a small Allis forceps. Thereafter, skin closure was done in a subcuticular way using 4/0 Monocryl® suture. Histopathologic examination revealed a cystic lesion with arborizing papillary and glandular structures lined by eosinophilic columnar epithelium showing decapitation secretion, occasional clear cell change, and a supporting myoepithelial layer, findings diagnostic of hidradenoma papilliferum (H&E, ×10) (figure 1). The patient was discharge immediately after excision. Postoperative recovery was unremarkable. The patient reported complete symptom resolution. Follow-up at six months confirmed ongoing relief without recurrence.

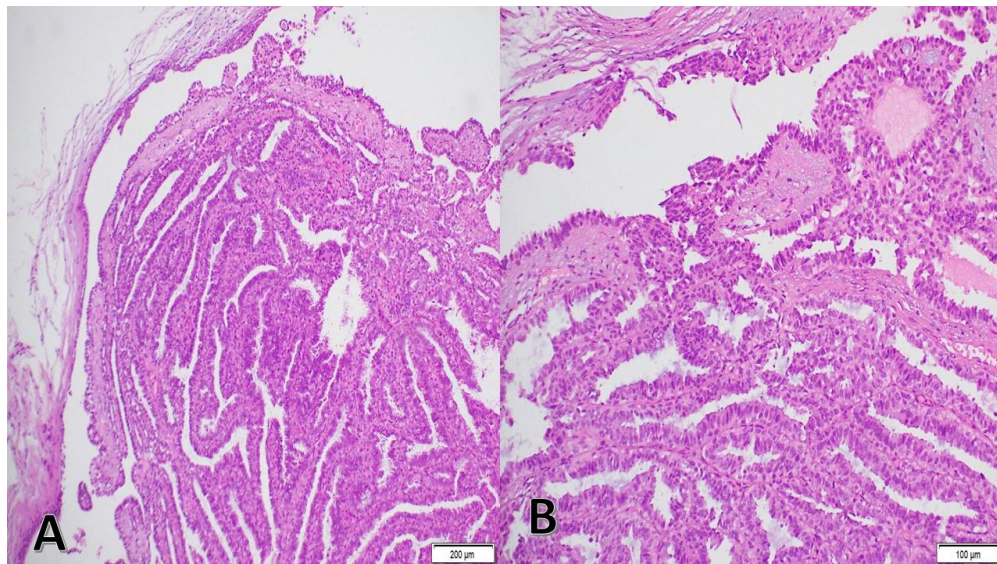


Figure 1. Histopathology of the excised vulvar lesion showing a cystic structure with papillary and glandular architecture, lined by columnar epithelium with decapitation secretion and a surrounding myoepithelial layer, consistent with hidradenoma papilliferum (H&E, ×10).

3. DISCUSSION

Hidradenoma papilliferum represents a benign tumor of the vulva, typically presenting as a small (<2 cm), well-circumscribed nodule in women aged 30–50 (2). These criteria were found in this case of 32 years old and had a small nodule. Though often asymptomatic, up to one-third may experience pruritus, pain, or discharge (5) as reported in this case. This report illustrates how a small and otherwise typical lesion may remain clinically occult and lead to prolonged symptoms if careful vulvar examination is omitted. A common mistake is to insert a bivalve vaginal speculum without thorough inspection and palpation of the external genitalia. Moreover, some lesions, as seen in this case, are even hidden on inspection of the external genitalia and should be searched for in the inner surface of labia majora aided by gentle double finger palpation. Fortunately, in this case this hidden lesion was a benign one but some other lesions like HPV or even carcinomatous nodule or ulcers (6) can be easily missed with subsequent delay of the diagnosis and prompt management. Not all cases of persistent pruritus vulvae are due to infection, inflammations or skin disease. Exclusion of organic

causes is mandatory prior to vaginal swabs. It has been reported that most women of vulvar carcinoma may present with vulvar pruritus or pain (6). However, malignant transformation into hidradenocarcinoma is exceedingly uncommon (2). This patient's symptoms of chronic pruritus and occasional discharge were initially mis-attributed to infections and dermatitis and received a lot of medications, a pattern previously reported in delayed diagnoses (7).

Symptomatic management may lead to extensive, unsuccessful therapy before proper diagnosis. Histopathology remains the gold standard for diagnosis, and surgical excision remains curative with rare recurrence as noticed in this case on follow-up for 6 months. Being a small-sized firm mass easily felt by two finger palpation excluded other possible vulvar lesions including Bartholin duct cyst, epidermal inclusion cyst. Exclusion of condyloma was based on absence of other lesions and negative vulvoscopy. Likewise, surface fibroepithelial polyp is excluded by non-visualization of the mass by naked-eye. Importantly, early vulvar intraepithelial neoplasia (VIN) was excluded by negative vulvoscopy. Nevertheless, technical limitations of this study include lack of histopathologic comment on biopsy margins which might be explained by the careful histopathologic diagnosis of the benign nature of this lesion. Moreover, immunohistochemical staining was not performed, as the diagnosis was established based on classical and unequivocal histomorphological features. Immunohistochemical staining as well as IHC (e.g., p63, SMA, ER/PR, GCDP-15) could strengthen diagnostic confirmation in equivocal cases but were excluded in this straightforward case. Follow-up period of 6 months was relatively short as assured by the knowledge that that recurrence of hidradenoma papilliferum after complete excision is rare. Lastly, clinical photograph or vulvoscopy image was not included in this case in respect to the patient's consent which did not include photos of her genitalia. Emerging molecular approaches may enhance future diagnostic pathways in equivocal cases (3,5); however, they were not applied in the present straightforward case.

4. CONCLUSION

This report illustrates how a small and otherwise typical lesion may remain clinically occult and lead to prolonged symptoms if careful vulvar examination is omitted. Tiny vulvar lesions like hidradenoma papilliferum should be included in the differential diagnosis of any case of persistent or resistant pruritus vulvae. Clinically, a thorough vulvar palpation in those cases before insertion of a vaginal speculum is mandatory to exclude any external vulvar causative lesion and avoid diagnostic delay. Not all vulvar symptoms are infectious or dermatologic in origin, and early identification of localized lesions can prevent unnecessary treatments and patient frustration.

Patient Perspective

"I tried many treatments without success and felt frustrated. When the doctor found the small lump and removed it, I immediately felt better. Six months later, I am symptom-free and thankful for the careful evaluation."

Learning Points

- Always include thorough vulvar examination in chronic pruritus cases.
- Consider **hidradenoma papilliferum** in the differential for unexplained vulvar nodules.
- Not all pruritus is infectious—think beyond the usual suspects.
- Histopathology confirms the diagnosis; surgical excision is typically curative.
- Evolving diagnostic tools, including molecular profiling and vulvoscopy, may assist in early recognition.

Declarations

- **Consent for Publication:** Written informed consent for publication of the clinical data was obtained from the patient prior to manuscript submission. No clinical photographs of the vulva were included.
- **Ethics Approval:** Not required for single case reports.
- **Conflict of Interest:** None.
- **Funding:** None.
- **Author Contributions :** **AD:** Case management, literature review, manuscript writing; **DD:** Manuscript review; **RA:** Initial lesion identification; **AO:** Histopathologic diagnosis

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