

Bartholin's Gland Squamous Cell Carcinoma, a Rare Vulvar Neoplasm

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Abstract

Squamous cell carcinoma of the vaginal Bartholin's glands is a rare vulvar neoplasm affecting predominantly postmenopausal women. This case report presents a woman in her early 50s with a firm mass in the posterior vagina. Surgical biopsy revealed the mass to be a poorly differentiated squamous cell carcinoma with probable direct invasion of the rectum.

Keywords

vulvar cancer, Bartholin's gland, human papillomavirus

Primary carcinomas of the Bartholin's gland account for 5% of all vulvar cancers. Bartholin's gland carcinomas can be squamous, papillary, or adenocarcinomas depending on the location of origin. Approximately 50% of Bartholin's gland tumors are squamous cell carcinomas. Prognosis in vulvar tumors is related to regional lymph node involvement, size, and location.

Case Report

A woman in her early 50s presented with a painless firm mass in the introitus of the posterior vagina. The mass was easily palpable by her gynecologist and was thought to be a Bartholin's duct cyst. She was referred for sonographic evaluation. The mass was evaluated using a Toshiba Nemio sonographic system (Tustin, CA) with a 6-MHz endovaginal transducer. The examination revealed a 3.7-cm echogenic mass with some internal calcifications (Figures 1 and 2). Although a complex, debris-filled Bartholin's duct cyst was considered, the examining sonographer's impression was that the mass was solid. Given the clinical presentation and the patient's age, a neoplasm was suspected. At surgery for excision, the mass was very firm and appeared fixed to the rectum. With the possibility of rectal involvement, biopsy was performed rather than excision. The biopsy demonstrated a poorly differentiated squamous cell carcinoma. At the time of this writing, the patient was undergoing further diagnostic testing to plan appropriate surgical intervention and treatment.

Discussion

The vulva is the outer part of the female genitals. The vulva includes the vaginal vestibule, labia majora, labia minora, and clitoris. The Bartholin's glands are found in the vaginal vestibule, one on each side at 4 o'clock and 8 o'clock. These glands produce a mucus-like fluid that acts as a lubricant during sexual intercourse. The Bartholin's glands develop from buds in the epithelium of the posterior vestibule. They drain from two 2.0- to 2.5-cm-long ducts that empty into the posterior vaginal canal. The glands are small, about the size of a pea, and rarely exceed 1.0 cm.^{1,2}

Bartholin's duct cysts are the most common growth in the vulva and will occur in 2% of women in their lifetime. They develop most frequently in the reproductive years, especially between 20 and 29 years of age. The cysts develop with obstruction of the distal Bartholin's duct by the retention of secretions. Some cysts may become infected, and an abscess will form in the gland, requiring surgical intervention and antibiotic therapy.^{3,4}

Because Bartholin's glands usually shrink during menopause, vulvar masses in older women are more likely to be malignant and must be differentiated from other benign

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Figure 1. Longitudinal image of the posterior vaginal wall mass.

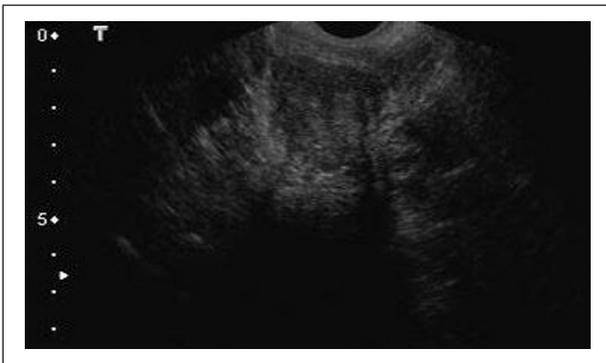


Figure 2. Transverse image of the posterior vaginal wall mass.

vulvar masses. This is especially true if the mass is firm, irregular, nodular, and persistently indurated.^{5,6} The most common solid vulvar lesions are listed in Tables 1 and 2.^{7,8}

Primary carcinomas of the Bartholin's glands account for 5% of all vulvar cancers. Bartholin's gland carcinomas can be squamous if they originate near the orifice of the duct, papillary if they arise from the transitional epithelium of the duct, or adenocarcinomas if they arise from the gland itself. Approximately 50% of Bartholin's gland tumors are squamous cell carcinomas.^{9,10} In 1993, Felix et al.¹¹ demonstrated that in their series of Bartholin's gland squamous cell carcinomas, six of seven (86%) contained human papillomavirus (HPV). They postulated that Bartholin's gland carcinomas are etiologically related to HPV infections, and this virus may play a critical role in the genesis of these tumors.

Prognosis in vulvar tumors is related to regional lymph node involvement, size, and location. A 5-year survival rate of 75% and a 10-year survival rate of 58% should be expected after complete surgical treatment of a primary invasive squamous vulvar cancer. Lymph node status is the most important prognostic variable. Overall, the

Table 1. Malignant Lesions

Lesion	Location
Squamous cell carcinoma	Multicentric
Adenocarcinoma	Bartholin's glands
Melanoma	Labia minora, clitoris
Sarcoma	Multicentric
Basal cell carcinoma	Multicentric

Table 2. Benign Lesions

Lesion	Location
Fibroma	Labia majora
Lipoma	Labia majora, clitoris
Leiomyoma	Labia majora
Acrochordon	Labia majora
Neurofibroma	Multicentric
Angiokeratoma	Multicentric

survival rate for patients with vulvar cancers and negative inguinal-femoral nodes is 90%, whereas rates drop to 40% with nodal metastasis.¹²

Conclusion

Although the majority of vulvar lesions are benign, especially in women younger than 50 years of age, any solid mass should be carefully evaluated for malignancy, particularly in postmenopausal women. Sonography can be a very useful tool in the differentiation of cystic versus solid vulvar masses, which will lead to better diagnosis and treatment.

Declaration of Conflicting Interests

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