Vulvar Leiomyomas and Leiomyosarcoma Masquerading as Bartholin Gland Duct Cyst: The Pathologist's Role in Best Treatment Outcome

Rebecca Levy, MD, Little Rock, AR; Whitney M. Winham, MD, Charles M. Quick, MD, University of Arkansas for Medical Science; Christopher S. Bryant, MD, NEA Baptist Clinic

Smooth muscle neoplasms of the vulva may clinically resemble a Bartholin gland duct cyst resulting in a delay in the diagnosis of an underlying malignancy. Pathologic diagnosis of vulvar sarcomas is necessary for adequate surgical treatment and improved disease outcome. Although 5-year survival is 70%, the literature reports that nearly one-half of patients with leiomyosarcoma of the vulva will develop disease recurrence requiring further treatment. We present two cases of leiomyoma and one case of leiomyosarcomamimicking Bartholin duct cysts. Diagnosis of leiomyosarcoma of the vulva depends on the presence of at least three or more of the following characteristics: a greatest diameter of 5 cm or more, infiltrative margins, more than 5 mitotic figures per 10 HPF, and moderate to severe cytologic atypia. A lesion that has only one of these characteristics is diagnosed as a leiomyoma; cases with 2 characteristics should be considered an atypical leiomyoma. Our institution has had two cases of leiomyomas and one case of leiomyosarcoma, all of which were clinically suspected Bartholin gland duct cysts. Smooth muscle actin and desmin immunostains highlighted the smooth muscle etiology for each case. The case of leiomyosarcoma had positive surgical margins. The clinician was contacted to discuss the unexpected results and the significance of a positive surgical margin. Pathology consultation with the primary surgeon resulted in expedited referral to gynecologic oncology for radical excision. No residual disease or evidence of distant metastases was identified after further surgical excision and radiographic imaging. Risk of recurrence of vulvar leiomyosarcoma has been associated with inadequate resection of margins. It is critical that the pathologist not only diagnose malignant smooth muscle neoplasms of the vulva, but also rapidly communicate the prognostic importance of the pathologic features that may contribute to a suboptimal outcome.

©American Society for Clinical Pathology

Am J Clin Pathol 2013;140:A147