High-grade diagnostic dilemma: an interesting case of a young woman with a vulval lesion

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Background

Vulval intraepithelial neoplasia (VIN) can be classified depending on underlying cause, HPV-mediated HSIL (high-grade squamous intraepithelial lesion) or lichen sclerosis/lichen planus associated inflammatory-mediated dVIN (differentiated vulval intraepithelial neoplasia) [1]. Both HSIL and dVIN have the potential to progress to vulval cancer [1]. Treatment options vary depending on underlying mechanism, with options such as laser, imiquimod cream or excision being available for cases of HSIL whereas excisional therapy is recommended for dVIN [1]. As such, accurate histological and clinical diagnoses are crucial.

This case highlights the important of reviewing histology to diagnose the cause of a lesion, in order to guide management.

Case

A 36 year old woman was referred to gynaecology clinic with a right vulval lesion. Multiple biopsies revealed different pathologies, creating a diagnostic dilemma and requiring pathology review.

Results

A punch biopsy of the lesion revealed HSIL, P16 strongly positive, requiring further excision. Under vulvoscopy, the lesion appeared more extensive, and another biopsy was performed on the contralateral side. This biopsy was reported as lichen simplex chronicus, P16 negative, and no HPV was found at CST performed at this same time. Wide local excision (WLE) of the HSIL lesion was recommended, the histology of which was initially reported as lichenoid keratosis. Upon further pathology review, it was stated that there was HSIL in the wide local incision. Further P16 staining was requested to aid diagnosis and it was found to have strong positive P16 staining, consistent with HSIL.

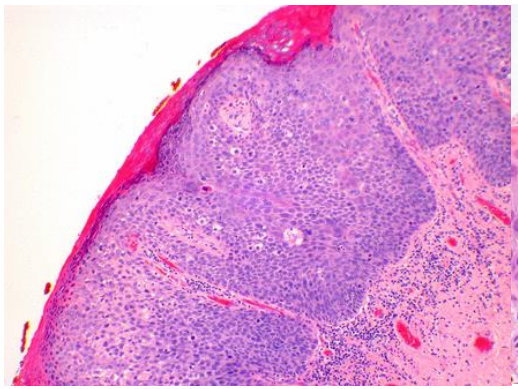

Figure 1: Example of vulvar HSIL [1]

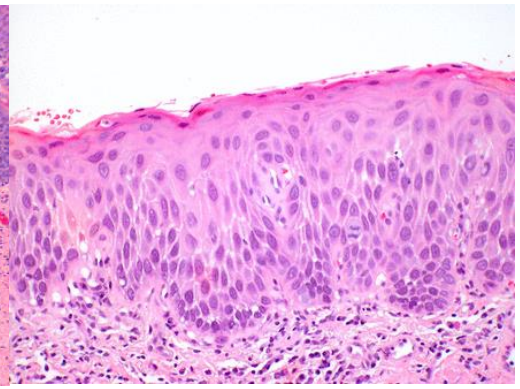

Figure 2: Example of dVIN [1]

Discussion

In the case of conflicting histology reports, it is important to request pathology review and further testing, such as P16 staining, to accurately diagnose the cause of a lesion, in order to guide management. This patient may have had further treatment options available to her if there was adequate diagnoses on each histology report. A diagnosis of dVIN would require further management with steroids to treat the underlying inflammatory process, whereas HPV would require follow up only. WLE in a young person can lead to more structural changes of the vulva and can have difficulty healing.

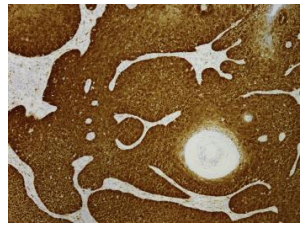

Figure 3: Example of p16 staining in a vulval biopsy [2]

References

[1] Preti M, *et al* The European Society of Gynaecological Oncology (ESGO), the International Society for the Study of Vulvovaginal Disease (ISSVD), the European College for the Study of Vulval Disease (ECSVD) and the European Federation for Colposcopy (EFC) consensus statements on pre-invasive vulvar lesions *International Journal of Gynecologic Cancer* 2022;**32**:830-845.
[2] Dohopolski MJ, *et al* The Prognostic Significance of p16 Status in Patients With Vulvar Cancer Treated With Vulvectomy and Adjuvant Radiation *Int J Radiat Oncol Biol Phys* 2019;103(1):152-160.