Coexistent pathology/precursor lesions (Core)

Recording the presence of precursor lesions and coexistent pathology is important for vulval squamous cell carcinoma (SCC) since this gives insight into the pathogenesis of the tumour, specifically whether it is human papillomavirus (HPV)-associated or HPV independent.[1] Margin involvement by a high grade precursor lesion is also important.

A variety of non-invasive lesions may be present in association with SCC. Some are considered to be precursor lesions while others, such as lichen sclerosus, are not considered to be a precursor lesion but rather a chronic inflammatory condition that increases the risk of HPV-independent SCC and cancer recurrence when present at surgical margins.[2,3]

The presence of the following should be noted in the setting of vulval SCC: HPV-associated squamous intraepithelial lesion (low grade squamous intraepithelial lesion (LSIL) or high grade squamous intraepithelial lesion (HSIL)), HPV-independent vulval intraepithelial neoplasia (VIN) and lichen sclerosus.

Vulval squamous precursor lesions are classified into HPV-associated and HPV-independent. The HPV-associated lesions predominantly comprise HSIL (VIN 2/3). LSIL in the vulva is uncommon aside from condylomatous lesions. HPV-associated precursor lesions are associated with smoking, immunosuppression and often multifocal disease including HPV-associated lesions in other areas of the lower female genital tract (vagina, cervix) and anal/perianal regions. HPV-independent precursor lesions, collectively termed 'VIN, HPV-independent', include differentiated VIN (dVIN) and two uncommon lesions termed vulvar acanthosis with altered differentiation (VAAD) and differentiated exophytic vulvar intraepithelial lesion (DEVIL).[4-7] The latter two lesions show significant morphological overlap and are likely part of a spectrum of HPV-independent precursor lesions. dVIN is typically associated with *TP53* mutations while VAAD and DEVIL usually do not contain mutations.

Biomarkers may be useful for appropriate classification of precursor lesions given that both HPV-independent premalignant lesions morphologically indistinguishable from HSIL and HPV-associated intraepithelial precursors simulating dVIN have been described (see **ANCILLARY STUDIES**).[8-11]

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