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Original contribution

Distribution and characterization of subtypes of penile intraepithelial neoplasia and their association with invasive carcinomas: a pathological study of 139 lesions in 121 patients[☆]

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Summary We are presenting the morphological features of 121 cases of atypical penile intraepithelial lesions. The term *penile intraepithelial neoplasia* (PeIN) was used to encompass all of them, and lesions were classified into 2 major groups, differentiated and undifferentiated. The latter was further divided in warty, basaloid, and warty-basaloid subtypes. Ninety-five cases were associated with invasive squamous cell carcinomas. Differentiated lesions predominated (68%), followed by warty-basaloid (14%), basaloid (11%), and warty (7%) subtypes. Multifocality was found in 15% of the cases. Differentiated lesions were preferentially located in foreskin, whereas warty and/or basaloid subtypes were more prevalent in the glans. The former lesions were preferentially seen in association with keratinizing variants of squamous carcinoma, whereas the latter subtypes were found mostly in conjunction with invasive warty, basaloid, and warty-basaloid carcinomas. Lichen sclerosus was present in 51% of cases of differentiated lesions and absent in warty and/or basaloid subtypes. In summary, PeIN can be classified into 4 distinctive morphological subtypes. The proper pathological characterization of these lesions may provide important clues to the understanding of the pathogenesis and natural history of penile cancer.

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