

Hyperkeratosis, a “False Negative” in Gynecological Cytology

Francisco Javier Torres Gómez

Pathology Service, Virgen Macarena University Hospital, Seville, Spain

Corresponding author

Francisco Javier Torres Gómez, Pathology Service. Virgen Macarena University Hospital. Seville. Spain.

Received: July 27, 2024; **Accepted:** August 05, 2024; **Published:** August 08, 2024

I would like to address the pathologists and cytotechnologists who like to read this magazine, an incomparable forum for sharing experiences and debating issues of general interest. On this occasion it is my intention to highlight a situation that, according to conversations held with other professionals involved in cytological diagnosis, is widespread in our country; We all know it: the cervico-vaginal cytological diagnosis has been so simplified (if not trivialized), that the same Bethesda System that advocates the international terminological consensus of our cytological diagnoses concentrates basically, if not solely on the affirmation or denial of an intraepithelial lesion (LSIL, HSIL), carcinomas/adenocarcinomas and inconclusive cellular morphological findings that make us hesitate when assigning the aforementioned diagnostic categories (ASC/ASCUS/ASC-H).

The hormonal pattern, so useful in the past, has gone into the background and even been ignored, the microbiological pattern has ceased to have the significance of yesteryear (with few exceptions) and the confirmation of the representativeness of the sample, of great significance in my view and that of the judges when necessary has disappeared in different protocols and reports, either due to the pathologist's negligence or pressure from the gynecologist, forced to repeat tests in a situation of unprecedented healthcare pressure. A shame, a loss of information and a situation that could be addressed in another letter.

Accepting the forum as appropriate, I would like to highlight the disappearance in our cytological reports of findings, apparently as banal as that of hyperkeratosis. It is true that, referring to its presence as a sign of epithelial hypermaturation or even reactive change to different attacks or infections, its presence in the cytological report can seem banal and even encourage the clinician to doubt or act in an inappropriate way. However, my experience forces me to highlight situations in which hyperkeratosis can imply different behaviors or carry an implicit meaning, at least transcendent.

My activity as a pathologist and cytologist allows me to carry out clinical-pathological correlations (when possible) and cyto-histological correlations, and it draws attention in relation to the latter that different intraepithelial lesions of low and, with a more worrying nuance, of high grade (we could add carcinomas) are associated with a process of superficial keratinization (Figure 1-3) that in cytology manifests itself as frank hyperkeratosis, more or less extensive (Figure 4-5). This is not always associated with the presence of atypical or neoplastic cells. What's more, there are cases in which cytology shows no more alterations than a simple hyperkeratosis. The situation necessarily raises the question of whether the term hyperkeratosis should be reported again in our cytological diagnostic reports, including in the work protocols the actions to be carried out when its presence raises doubts for the clinician. In the last year I have been able to verify the phenomenon in five cases, one of which will illustrate this letter and I leave the debate open, surely juicy for the different colleagues to share their opinion on the matter.

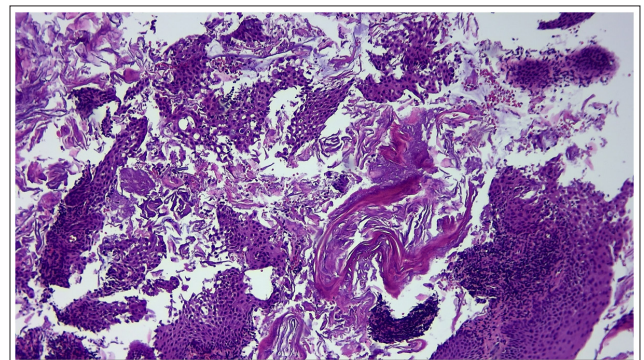


Figure 1: Several fragments of dysplastic cervical epithelium with intense superficial hyperkeratosis. HE. 40X

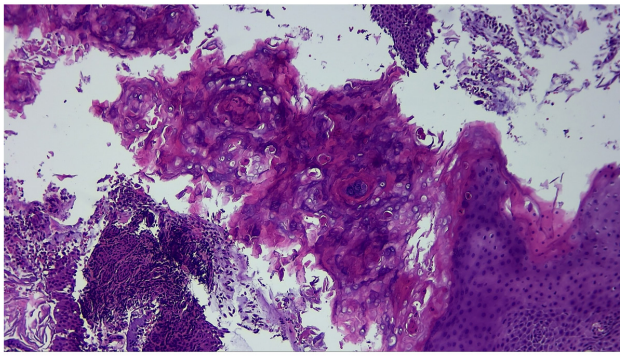


Figure 2: Various fragments of dysplastic cervical epithelium. The striking central hyperparakeratosis forms a true column. HE40X

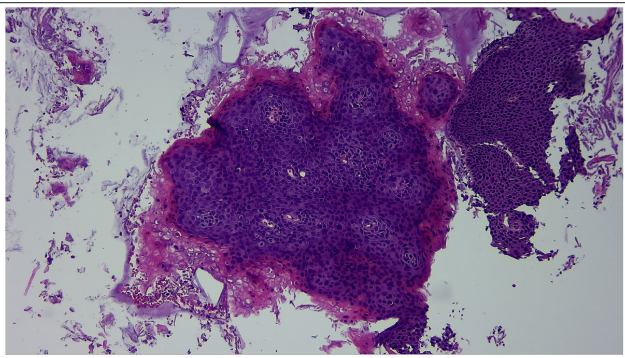


Figure 3: Transition between reactive-hyperplastic epithelium and epithelium with high-grade dysplasia together with intense hyperkeratosis. HE100X

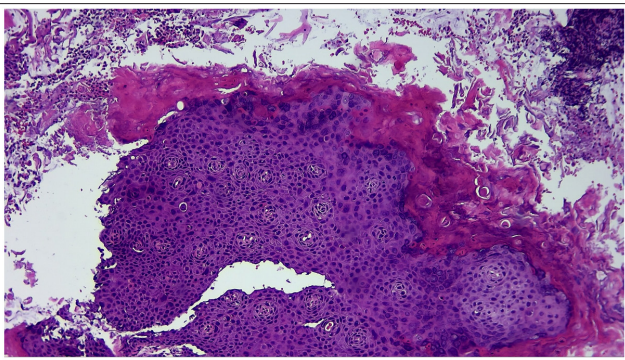


Figure 4: Central hyperkeratosis. Detail 200X

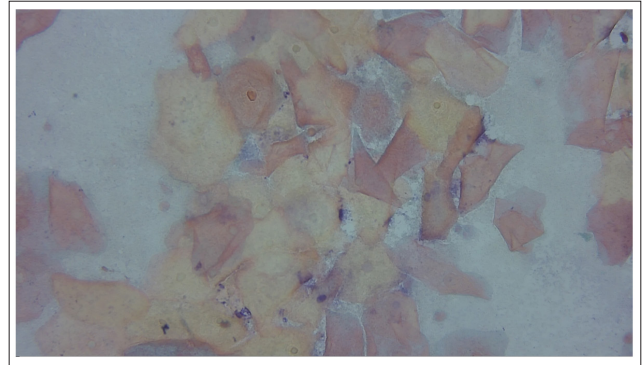


Figure 5: Groups of intensely keratinized cells, without nuclei (scales) that prevent sampling of the underlying intraepithelial lesion. The image shows an accompanying coccal flora. Pap 200X

I would like to clarify that the histological study was carried out in two cases in which the cytological positivity showed a high-grade lesion after successive negative samples (retrospectively verified) in which a striking hyperkeratosis appeared and in three of them it was associated with keratinizing carcinoma in two of which the gynecologist saw a macroscopic lesion and one from Primary Care without suspicion, cases corresponding to practice in both public and private healthcare.