

## In this issue

Published online: 13 November 2019

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Stolnica et al. (<https://doi.org/10.1007/s00428-019-02601-0>) open this issue with a review on the classification of endocervical adenocarcinomas. Insufficient impact of the 2014 World Health Organization classification led to the development of a new approach known as the International Endocervical Adenocarcinoma Criteria and Classification. The innovative element in this classification is its distinction between human papillomavirus (HPV)-associated and non-HPV-associated endocervical adenocarcinomas, based on morphological criteria only without the need for immunohistochemical markers. Clinical and demographic characteristics appear to support this dichotomy. The clinical importance of the host of morphological subtypes in each of these two categories is less clear, as many are quite rare and large studies on their clinicopathological characteristics might not have been conducted as yet. The authors foresee better potential for precision medicine approaches using the new classification.

Two papers in this issue address important questions of quality of reporting. The first is on standardized structured reporting in pathology, which is gaining traction but acceptance of this reporting format is still limited. Swillens et al. (<https://doi.org/10.1007/s00428-019-02609-6>) asked the question which factors hamper or favour its acceptance. The group established barriers and facilitating factors through discussions in a focus group. Once these were identified, a web-based survey was conducted to which around 100 pathologists responded. Among the barriers identified were a lack of knowledge on the availability of appropriate templates, lack of conviction regarding the advantages and perceived lack of nuance in structured standardized reporting, and lack of group support in its implementation. Facilitators were compatibility of the templates with speech recognition and a perceived improvement in the quality of multidisciplinary team meetings. The findings illustrate persistent objections against this modality of pathology reporting, which undoubtedly provides significant advantages over narrative reports most pathologists grew up with. This knowledge can help in designing effective strategies towards universal implementation of structured standardized reporting. Sharma et al. (<https://doi.org/10.1007/s00428-019-02629-2>) address the issue of

reproducibility of a histopathological diagnosis of microscopic colitis, including the distinction between lymphocytic colitis and collagenous colitis. The approach included comparing the diagnosis made by individual general pathologists, individual expert gastro-intestinal pathologists and a consensus diagnosis made by the group of experts. It comes without surprise that the highest consensus was reached on the diagnosis of ‘normal’. Overall agreement between the different groups was acceptable with k-scores of 0.70 and higher. A remarkable finding, however, was that the agreement between the general pathologists and the consensus group diagnoses was at least as good as that with the expert gastro-intestinal pathologists’ diagnoses. The authors somewhat prudently conclude that it remains unclear whether subspecialty training improves agreement, even though the evidence presented suggests that this is not the case, at least for this diagnosis. In contrast, the conclusion that in case of doubt a consensus approach within a group is recommendable makes good sense.

The paper by La Rosa et al. (<https://doi.org/10.1007/s00428-019-02612-x>) brings up interesting questions regarding the clinical correlate of ACTH secretion by lung carcinoids, which might manifest as ectopic Cushing syndrome. The group performed a retrospective study on a series of lung carcinoids, asking how often ACTH expression could be identified in the tumor and how often this is paralleled by clinical manifestations of Cushing syndrome. A large series of lung carcinoids was subjected to RT-PCR to detect pro-opiomelanocortin encoding mRNA indicating transcription, and to immunohistochemistry using antibodies against ACTH and  $\beta$ -endorphin to detect translation. Strikingly, of the tumors in which transcription and/or translation were identified only a small proportion had clinical manifestations of Cushing syndrome. Of note, no differences in behavior were found between ACTH expressing and non-expressing tumors. The key finding of the study is that immunohistochemical and/or mRNA expression is paralleled in a minority of cases by clinical manifestations of Cushing syndrome. The paper does not include data on plasma ACTH levels. This leaves open the possibility that some ACTH expressing tumor cells are incapable of releasing the peptide,

which would provide a mechanism explaining this apparent discrepancy. Studies with more detailed clinical (endocrinological) information might further clarify this issue.

Two papers focus on marker studies. Schwamborn et al. (<https://doi.org/10.1007/s00428-019-02610-z>) assessed the reproducibility of establishing expression of Programmed death-ligand 1 (PD-L1) expression on tumour cells and tumourinfiltrating immune cells bladder cancer using four different anti-PD-L1 antibodies. The good news is that for assessment of PD-L1 expression on immune cells no significant differences were detected between the four antibodies. Agreement in scoring of immunoreactivity by different assessors was high. One antibody performed less well for expression of PD-L1 on tumor cells. While this is reassuring in terms of agreement between different staining protocols, standardization in terms of staining protocols and used antibodies remains an important goal. The paper by Hsieh et al. (<https://doi.org/10.1007/s00428-019-02600-1>)

addresses expression of a single marker Mist1 (muscle, intestine, and stomach expression 1), in salivary gland acinic cell carcinomas, for which it has been claimed to be specific. It turns out that almost all acinic cell carcinomas indeed express moderate to high levels of Mist1, while its expression is rare in other types of salivary gland lesions. Mist1 might therefore be used as a marker to support this diagnosis. The paper does not address in which proportion of cases this marker was needed to get to the final diagnosis. Whether or not the marker is essential to make the diagnosis therefore remains an open question. The cover image is from this paper and shows strong nuclear staining for Mist1 in an acinic cell carcinoma.

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