In this issue

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This issue opens with a series of papers on colorectal pathology, not intentionally, but it is a reflection of the volume of digestive tract pathology most practicing pathologists will encounter daily. In the first paper, Koelzer et al. (DOI [10.1007/s00428-015-1737-4](https://doi.org/10.1007/s00428-015-1737-4)) readdress the issue of tumor cell budding as an indicator of prognosis. Even though several studies had already shown the potential as prognostic marker of this expression of invasive tendency of the tumor, interobserver reproducibility issues hampered its introduction into daily practice. For this study, pan-cytokeratin staining was used and a strictly defined scoring approach by six participating centers, using virtual slides. Not surprisingly, cytokeratin staining resulted in higher budding scores. Correlation coefficients for tumor budding counts between centers as well as interobserver agreement were good to excellent on cytokeratin-stained slides while only moderate on H&E slides. The authors recommend the use of cytokeratin staining whenever possible, counting on 10 HPF for resection specimens and on 1 HPF for limited material and a continuous score rather than a predefined cutoff. The cover image is from this paper and shows pan-cytokeratin staining of a colorectal cancer with tumor buds.

Hav and coworkers (DOI [10.1007/s00428-015-1733-8](https://doi.org/10.1007/s00428-015-1733-8)) took a good look at what goes on when a rectal tumor is responds to neoadjuvant radiochemotherapy. As expected, good response according to Dworak regression grade went along with longer disease-free survival, reduction in depth of infiltration, nodal status, and involvement of the circumferential margin but not with consistent reduction in tumor mass. The interpretation is that tumor mass decreases sometimes due to fragmentation rather than shrinkage of the primary tumor. An important implication of this notion is that assessment of

tumor regression based upon the amount of fibrosis does not distinguish between tumor fragmentation and tumor shrinkage. Tumor regression might have to be revisited, taking fragmentation of the tumor into account.

Zidar et al. ([10.1007/s00428-015-1736-5](https://doi.org/10.1007/s00428-015-1736-5)) focused on cytomegalovirus (CMV) reactivation as a common complication in inflammatory bowel disease (IBD) patients. This is usually diagnosed by histology complemented with immunohistochemistry. Quantitative real-time polymerase chain reaction (qPCR) has better sensitivity but its introduction into daily practice required comparison of the two methods, which was performed in samples from resected bowel of patients with IBD. Highest density of CMV-positive cells was found in the base of ulcers, both by immunohistochemistry and qPCR. Concordance between the two methods was good, which indicates that they give equivalent results. Given the patchy distribution of viral particles, the authors recommend examination of a good number of biopsy samples at multiple levels for an optimal result.

Finally, Comperat et al. ([10.1007/s00428-015-1734-7](https://doi.org/10.1007/s00428-015-1734-7)) asked which cancer types occur in the urinary bladder of patients less than 40 years old and how these neoplasms behave. They collected a large series of such lesions, classified them according to the latest WHO classification and recorded stage, grade, multifocality, smoking habits, recurrence, and survival. The large majority of the lesions were urothelial carcinomas. In the age group under 30 years of age, 40 % of the cases concerned a papillary urothelial neoplasia of low malignant potential (PUNLMP), which decreased to 27 % in the age group over 30 years. Only 6 % of the urinary bladder cancers were associated with carcinoma in situ and few had progressed to muscle invasion or lymph node or distant metastasis. About a quarter of the patients relapsed, in one third of the cases without progression. The overall conclusion is that PUNLMP is the most frequent entity in this patient group, which calls for keeping this category in current classifications. I can assure readers that this will be the case in the fourth edition of the WHO classification, which should be published towards the end of this year.

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