

In this issue

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This issue opens with two review papers of a rather different nature. Kench et al. (<https://doi.org/10.1007/s00428-019-02574-0>) introduce the International Collaboration on Cancer Reporting (ICCR) dataset for prostate cancer in radical prostatectomy specimens. This new dataset is an update of one of the earlier ICCR datasets, now taking into account changes in Gleason grading and the latest WHO classification and TNM staging systems. Evidence based cancer datasets are essential for the development of structured reports, which provide standardized comprehensive information to the requesting physicians as well as facilitating the collection of standardized data for cancer registries, allowing more accurate global cancer epidemiology. Importantly, the ICCR datasets are established through a global concertation process with the intention to establish universally used standards. Leone et al. (<https://doi.org/10.1007/s00428-019-02615-8>) review the complex subject of myocarditis. This heterogeneous group of inflammatory conditions of the myocardium is presently categorized according to the prevalent histopathologic pattern (e.g. lymphocytic, lympho-histiocytic, eosinophilic neutrophilic, giant cell and granulomatous forms). A still burning problem is the lack of correlation between histological pattern and clinical presentation and disease course. This is to a large extent due to the difficulty of obtaining serial biopsy samples at specific stages of disease. The authors argue that despite this incomplete understanding, aetiology driven approaches to the work-up of biopsy specimens, notably in combination with detailed clinical information, multimodal imaging and molecular analyses, will support clinical management and increase insight into aetiology and pathogenesis.

Altinay et al. (<https://doi.org/10.1007/s00428-019-02596-8>) explore histological prognostic factors in neuroendocrine neoplasms of the lung, with as starting point the observation that spread through air spaces has prognostic value in pulmonary adenocarcinoma and squamous cell carcinoma.

They determined growth into air spaces also in typical and atypical lung carcinoids and small and large cell neuroendocrine carcinoma. It turns out that the tendency to grow into air spaces is higher in atypical than in typical carcinoids and higher in neuroendocrine carcinomas than in atypical carcinoids. Among carcinoids, those with growth into air spaces tended to have a high tumour stage, positive nodal status, high Ki-67 index, presence of angioinvasion, all associated with less favourable disease outcome.

For many types of cancer, The Cancer Genome Atlas project has resulted in the introduction of genomic taxonomies. For bladder cancer such taxonomy, which distinguishes basal and luminal molecular subtypes, has been established using muscle invasive cases. In addition, in bladder cancer immunohistochemical marker expression has provided a surrogate for genomic markers. Rodriguez Pena et al. (<https://doi.org/10.1007/s00428-019-02618-5>) studied whether expression of the individual immunohistochemical markers included in the panel used for molecular classification might also be useful in non-muscle invasive bladder cancer. They report that expression of most of the markers included in the molecular classification panel is associated with tumour recurrence or tumour grade progression. The authors conclude that expression of individual immunohistochemical markers is potentially of clinical significance, in predicting the likelihood of recurrence or progression of non-muscle invasive bladder cancer.

How detailed analysis of just a few cases can contribute to understanding the pathogenesis of a condition is well illustrated in the report by Takayama et al. (<https://doi.org/10.1007/s00428-019-02592-y>). They addressed the question whether hyperplastic polyps and adenocarcinomas of the gastric mucosa share molecular events, supportive of hyperplastic polyps as precursor lesions to cancer. Genome-wide analysis of a couple of cases of gastric adenocarcinoma with a hyperplastic polyp component showed characteristic copy number

alterations and TP53 mutations only in the adenocarcinoma components, but not in the hyperplastic component. Although these findings do not provide evidence in support of a hyperplastic polyp-adenocarcinoma sequence, the final verdict as to (in)validity of such a sequence awaits similar studies on larger numbers of cases. The cover image is from this paper and

shows the histology of a gastric polyp containing a hyperplastic and an adenocarcinoma component.

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