

Literature Update - Surgical Pathology
(Snippets in Surgical Pathology)
May 2009

Journal of Pathology, Vol. 218, No. 1, May 2009

- **Page 7:** For the traditional autopsy pathologists interested in the micropathogenesis of plaque rupture/thrombus formation in atherogenesis, this review explores the role of angiogenesis and hypoxia (secondary to inflammation creating an increased oxygen demand) followed by microvessel endothelial destruction, intraplaque hemorrhage and ultimate rupture. Hence, clinically both angiogenesis and hypoxia present novel targets for non-invasive imaging of plaques at risk for rupture.
- **Page 48:** The last few months has seen the literature present a viral oncogenetic role for the pathogenesis of (most unlikely!) Merkel cell carcinoma. This study explores 10 cases demonstrating the so-called Merkel cell virus in an integrated physical state with no alteration of the adjacent cellular genes and a clonal pattern of the MCV integration pattern, further evidence supporting a causative role for MCV in the tumor process.

Human Pathology, Vol. 40, No. 5, May 2009

- **Page 624:** Not entirely new to those of us who have spent hours searching for spirochetes on mucocutaneous lesion of syphilis is this study demonstrating an epitheliotropic (lower epidermis/mucosa) intercellular distribution of *Treponema pallidum* in secondary syphilis. Primary syphilitic lesions, in contrast, demonstrated a mixed epitheliotropic and vasculotropic (*treponemes* surrounding vascular wall) distribution. This study also showed that IHC was superior to Warthin-Starry silver for the detection of these spiral organisms.
- **Page 662:** An interesting survey revealing that residents found virtual microscopy acceptable as a learning aid but not for diagnostic testing (even though there was no difference in their diagnostic ability with either tool), and preferred glass microscopy for the latter!
- **Page 678:** Another study (from Japan) exploring minute pulmonary meningothelial-like nodules attesting to the power of common thought seen not too infrequently in the literature. The previous study was from the USA (see *Am J Surg Path*, April 2009).

Histopathology, Vol. 54, No. 6, May 2009

- **Page 768:** We have all encountered the frustrating call from our surgeons demanding 12-15 lymph nodes (?magical number) dissection from colo-rectal carcinoma specimens. This study throws light on the subject with the following: (a) the “second search” for lymph nodes in mesorectal cancer excision does not influence staging nor management; (b) an average of 5 lymph nodes were found on second search; (c) there were no upgrades in lymph node status with any second search, especially in cases that had negative lymph nodes the first time around; (d) those lymph nodes that were positive were usually found in the first search (naturally, since pathologists practice due diligence to avoid the surgeon’s call!); (e) finally, however, the second search *does* bring the total number of lymph nodes to the magical figure of 12 (hurrah for all concerned!). These findings were similar for patients with and without preoperative adjuvant chemo-radiation.
- **Page 763:** Serous carcinomas of the ovary typically follow a binary pathway based on morphology (low grade vs high grade) and molecular analysis (k-ras/BRAF vs p53 mutations), respectively. This case report documents a case of low grade transforming to high grade serous carcinoma. To date, six cases were previously published in the literature (see *Am J Surg Path* 2007; 31:1007).

Advances in Anatomic Pathology, Vol. 16, No. 2, May 2009

- **Page 135:** If you have missed the recent literature on the viral etiology of Merkel cell carcinoma, this review does an excellent job of bringing us up to date (includes etiology, differential diagnosis and IHC).
- **Page 161:** Esophageal biopsies comprise a major part of our daily practice. This timely review explores the pathologists' perspective regarding criteria (with great photographs) for GERD.

Journal of Clinical Pathology, Vol. 62, No. 5, May 2009

- **Page 385:** This excellent review in the "My Approach" series is also an "Editor's Choice". The subject is interstitial lung disease and superbly outlines the authors' pattern approach to interstitial lung disease. Great photographs too!! This can be downloaded free of charge – so strongly recommended.

International Journal of Gynecological Pathology, Vol. 28, No. 3, May 2009

- **Page 239:** This excellent overview provides a wonderful framework for GYN pathologists (and generalists too!) with respect to microsatellite instability (MSI) in endometrial carcinomas (EC). MMR (mismatch gene repair), carcinogenesis, testing and the morphology of MSI endometrial cancers are reviewed. Basically, 20-30% of EC are MSI, being detected by IHC or PCR. It appears to be an early event in both sporadic and HNPCC-associated endometrial carcinomas. The sporadic cases are exclusively type I (endometrioid), whilst 40-50% of the HNPCC patients present with higher grade/ lymphocytes+++ morphology.
- **Page 286:** A neat report of two cases of epithelial-myoeplithelial carcinoma of Bartholin's gland – a distinctive neoplasm arising in the vulvovaginal region.

American Journal of Surgical Pathology, Vol. 33, No. 5, May 2009

- **Page 645:** A review of liposarcomas (LS) in young patients (82 cases) under 22 years. Myxoid LS appears to be the commonest with two novel subtypes (spindle cell and pleomorphic) described, probably representing low and high grade variants of MLS.
- **Page 659:** Urachal carcinomas (24 cases) arise in the dome and form the epicenter in the bladder wall. A wide variety of morphological types of carcinoma arise in this setting (adeno-, enteric type-, LEL-like, urothelial and signet ring).
- **Page 669:** The differential diagnosis of chordoid meningioma is reviewed in this well-illustrated/investigated series (chordoma, ES myxoid CS, chordoid glioma of III V, skeletal myxoid CS, low grade chondrosarcoma and enchondroma). A novel finding is that ESMCS are D2-40 positive!
- **Page 775:** The PAX gene family encodes a group of transcription factors crucial to organogenesis. PAX-5 is expressed in normal B-cells and a subset of neuroendocrine, urothelial and Merkel cell carcinoma, glioblastomas. This study demonstrates that B-lymphoblastic lymphomas and 67% of alveolar rhabdomyosarcomas (ARMS) may react with PAX-5. The latter is not surprising given that the PAX gene family is involved in ARMS translocation, resulting in possible immuno-crossreactivity. These authors further contend that PAX-5 immunoreactivity may be specific for the (t1;13) and (t2;13).

American Journal of Clinical Pathology, Vol. 131, No. 5, May 2009

- **Page 683:** Many of us have saved ribbons between sections of prostate biopsies. This study nicely demonstrates that IHC on these saved interval sections (vs new recut sections) is of greater benefit, due to frequent loss of pertinent foci in recut sections.
- **Page 694:** The link between morphological observation and molecular anomalies continues to fascinate. This study demonstrates that lung adenocarcinomas with a micropapillary pattern are more likely to harbor (t=73%) k-ras (33%), EGFR (20%) and BRAF (20%) mutations. Most of these patients were smokers and Caucasian (Western).

Archives of Pathology & Laboratory Medicine, Vol. 133, No. 5, May 2009

This edition carries the Memorial Sloan-Kettering surgical pathology course:

- **Page 683:** Problems and controversies in thyroid follicular carcinoma explores the importance of accurate assessment of vascular invasion, the role of proliferative grading (mitoses/necrosis) being of high prognostic value (previously neglected) and the usefulness of molecular data to reassess the follicular variant of PTC.
- **Page 692:** Necrotizing sialometaplasia of minor salivary glands may be a manifestation of bulaemia. Morphologically, these enigmatic lesions (not to be confused with invasive squamous cell carcinomas of the palate) comprise pseudoepitheliomatous hyperplasia, squamous metaplasia of ducts/acini with preservation of lobular architecture (which shows lobular infarction and mucin spillage).
- **Page 699:** The major diagnostic challenge of undifferentiated malignant neoplasm of sinonasal tract is visited in the context of its differential diagnoses: olfactory neuroblastoma, melanoma, small cell carcinoma, NK/T-cell lymphoma, rhabdomyosarcoma and poorly differentiated carcinoma. Great write-up with excellent photomicrographs.
- **Page 713:** Fibroepithelial tumors of breast.
- **Page 722:** Mimics of mammary neoplasia.
- **Page 729:** Current concepts in cervical pathology.

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