WK-01  WORKSHOP ON SCREENING HISTORIES OF WOMEN WITH INVASIVE CERVICAL CANCER

Amanda Herbert

This workshop is composed of 25 cases from an ongoing local audit selected to demonstrate factors in the screening history that may be relevant to invasive cancer not having been prevented. False positive and false negative cytology slides are included, but the emphasis is placed on multiple factors that are often involved in these cases. Conventional smears and liquid-based preparations (ThinPrep) are included. Workshop notes include a brief overview of the NHS Cervical Screening Programme, with the latest figures for incidence and prevalence of invasive and in situ cervical carcinoma in England.

From St. Thomas’ Hospital, London, U.K.

WK-02  RECOGNIZING AND CLASSIFYING ATYPICAL GLANDULAR CELLS ON PAP TESTS

Martha Pitman and Cathy Mitchell

Using at least 82 biopsy-confirmed cases of glandular cell abnormalities detected on ThinPrep Pap test slides, including all of the TBS 2001 atypical glandular cell categories of abnormality, along with the expertise of the course directors and faculty, workshop attendees will learn the criteria for classification of glandular cell abnormalities in ThinPrep Pap tests according to TBS 2001. The course director will demonstrate and summarize criteria for all categories using a projection microscope. Participants will then apply criteria to unknown glass slides, some of which have the histologic correlate also available for review.

From Harvard Medical School, Boston, and Cytyc LP, Marlborough, Massachusetts, U.S.A.

WK-03  INTRAOPERATIVE CYTOLOGY OF CENTRAL NERVOUS SYSTEM LESIONS

Matthew Zarka and Gregory Moes

This workshop is intended for the community surgical pathologist or cytopathologist who does not have rapid access to a board certified neuropathologist when confronted with an intraoperative consultation for a central nervous system (CNS) lesion. In many centers, rapid intraoperative consultation of CNS tumors is limited to the use of traditional frozen section slides, which are often plagued with various freezing artifacts. This workshop will introduce the pathologist and cytotechnologist to the technique of cytologic squash preparations as an adjunct to or replacement for frozen section of CNS lesions. The workshop will be divided into 2 portions, didactic lecture and microscopic workshop of study set cases.

From Mayo Clinic Arizona, Scottsdale, Arizona; and Kaiser Permanente Medical Center, Oakland, California, U.S.A.

WK-04  ONSITE ENDOSCOPIC ULTRASOUND–GUIDED FINE NEEDLE ASPIRATION OF MEDIASTINAL LYMPH NODES: AN IMPORTANT NEW TOOL IN LUNG CANCER STAGING

Marleen Praet and Lieve Vanwalleghem

Establishing the cause of enlarged mediastinal lymph nodes is often a common medical dilemma not solved by radiologic methods. Guidelines in relation to lung cancer staging state that enlarged mediastinal lymph nodes need pathologic confirmation with a surgical procedure, the mediastinoscopy, as a gold standard. Endoscopic ultrasound of the mediastinum with real-time guided fine needle aspiration (EUS-FNA) and onsite cytopathologic interpretation of Diff-Quik–stained slides offers a noninvasive tool for lung cancer staging. Cooperation between the cytopathologist and the pulmonologist avoids inadequate (bloody, acellular) and not representa-
WK-05  THE EXPANDING ROLE OF CYTOPATHOLOGY IN BREAST CANCER DIAGNOSIS AND MANAGEMENT

Shahla Masood

Aside from fine needle aspiration biopsy (FNAB), breast cytomorphology has become an integral part of practice in breast pathology. Use of imprint cytology for assessment of metastatic disease in sentinel lymph node biopsy is now a common practice. Imprint cytology has been effectively used for assessment of breast lumpectomy margins. Recent focus on early breast cancer detection and prevention introduced minimally invasive procedures such as FNAB, nipple fluid aspiration and ductal lavage for identification of high-risk patients. Recognition of cytomorphology of high-risk proliferative breast disease and premalignant lesions is an intriguing concept for identifying patients who may benefit from various risk-reduction modalities.

From the University of Florida College of Medicine–Jacksonville, Jacksonville, Florida, U.S.A.

WK-06  CYTOLOGIC PREDICTION OF ENDOCERVICAL GLANDULAR LESIONS

Jennifer Roberts, Ron Bowditch and Ning Xu

The session will involve an element of didactic teaching with many photomicrographs to complement discussion of our approach to interpretation of abnormal glandular groups. This approach will then be illustrated in an interactive format, with slides from histologically confirmed cases of adenocarcinoma in situ and cervical adenocarcinoma. Both conventional smears and ThinPrep slides will be illustrated and morphologic differences between the two highlighted.

From Symbion Laverty Pathology, North Ryde, New South Wales, Australia.

WK-07  DIAGNOSTIC CYTOPATHOLOGY OF SEROUS EFFUSIONS

Vinod Shidham and Yener Erozan

The course will provide a comprehensive overview of the diagnostic framework for evaluating cytology of serous effusions, which are easily obtainable and therefore can be seen in any pathology laboratory. They can present considerable diagnostic difficulty for practicing pathologists in both community and academic settings. The intended audience includes residents, fellows and pathologists wishing to refresh and update their knowledge in this field. Topics covered will be practical issues, including specimen collection and processing, with emphasis on cytomorphologic evaluation with proper application of ancillary tests, especially immunocytochemistry.

From University Hospital Gent, Gent, Belgium.

WK-08  CYTOLOGIC AND HISTOLOGIC FEATURES OF GLANDULAR LESIONS OF THE UTERINE CERVIX

Maire Duggan

A comprehensive series of cases, encompassing benign and malignant glandular lesions of the uterine cervix, will be selected. Following a didactic presentation highlighting the key cytoplogic and histologic features, pitfalls of diagnosis and indications for additional testing, registrants will review the slide packets. Dr. Duggan will be present to answer questions and assist with the evaluation of the slides. Registrants will receive a syllabus of the didactic presentation. This workshop is suitable for pathologists and residents. It is a microscope-based workshop and limited to 40 people.

From University of Calgary, Calgary, Alberta, Canada.

WK-09  WORKSHOP ON PITFALLS IN LIQUID-BASED CYTOLOGY

Mita Desai and John Smith

This workshop will be presented by Dr. Desai and Dr. Smith on behalf of the British Society for Clinical Cytology. The workshop consists of cases showing morphologic pitfalls that may lead to false positive and false negative diagnoses of low-grade squamous intraepithelial lesion (LSIL) and high-grade squamous intraepithelial lesion (HSIL) (mild, moderate and severe dyskaryosis) and atypical glandular cells of undetermined significance (AGUS) or adenocarcinoma in situ (AIS) (? glandular neoplasia) in SurePath and ThinPrep liquid-based cytology (LBC) preparations. The workshop will also include cases in which suboptimal preparation of LBC samples can lead to erroneous diagnoses and include useful tips on how to improve these preparations.

From Manchester Cytology Centre, Manchester, and Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, U.K.

WK-10  STATE OF THE ART DIAGNOSIS OF URINARY CYTOLOGY INCORPORATING MOLECULAR TECHNIQUES AND DNA PLOIDY STUDIES

Ruth Katz and Nancy Caraway

Urinary cytology is challenging to pathologists and clinicians. Studies show urinary cytology has low sensitivity for detection of urothelial carcinoma, especially low-grade tumors. Following bacillus Calmette Guérin therapy, cytologic findings can be difficult to interpret. We found fluorescence in situ hybridization (FISH) and DNA ploidy to be invaluable in these specimens. This workshop will comprise a lecture followed by a glass slide workshop. The lecture is entitled Urothelial Abnormalities, Potential Pitfalls, the Use of Ancillary Studies Such as FISH and Digital Image Cytometry in...
the Detection of Recurrent Urothelial Carcinoma. Participants will have opportunity to review 100 interesting cases: urinary cytology with ancillary studies including FISH images or DNA histograms.

From the University of Texas M.D. Anderson Cancer Center, Houston, Texas, U.S.A.

WK-11 LÖWHAGEN’S LEGACY: A MULTINATIONAL SAMPLER OF FINE NEEDLE ASPIRATION CYTOLOGY

William Geddie and Gilda Cunha Santos

This advanced multinational workshop will present material solicited from some of Dr. Löwhagen’s former trainees and colleagues, who were requested to provide smears they feel would have satisfied his exacting standards. A case discussion approach will be used to illustrate the fine needle aspiration (FNA) morphology of these samples, with particular emphasis on differential diagnosis and pitfalls. Presentations of the cases at the conference will include tips for obtaining FNA samples as taught by Dr. Löwhagen, video demonstration of his famous “1-step” and “2-step” smearing methods.

From the University of Toronto, Toronto, Ontario, Canada.

WK-12 BREAST CYTOPATHOLOGY: FINE NEEDLE ASPIRATION CYTOLOGY OF MAMMOGRAPHIC MICROCALCIFICATIONS WITH EMPHASIS ON THE CYTOLOGIC FEATURES OF DUCTAL CARCINOMA IN SITU

Torill Sauer

The workshop consists of approximately 300 fine needle aspiration cytology (FNAC) cases of histology-verified ductal carcinoma in situ (DCIS) of the breast or DCIS with an additional invasive component. A few cases of atypical ductal hyperplasia, atypical lobular hyperplasia and benign microcalcifications are also included. About 80% of the DCIS cases are high grade.

From Ullevaal University Hospital, Oslo, Norway.

AWARD LECTURES

CYTOTECHNOLOGIST OF THE YEAR 2005

AW-01 AN EVALUATION OF CD26/DIPEPTIDYL IV IN THE CELLULAR DIAGNOSIS OF THYROID TUMORS

Yatsuki Aratake

The aim of this study was to evaluate the clinical usefulness of CD26/dipeptidyl peptidase IV (CD26/DPPIV) staining as applied to cellular preparations and frozen section in thyroid neoplasms. During the period 1991–2006, we examined the expression of CD26/DPPIV in 1,201 samples of thyroid tissues. Staining activity for cellular specimens and frozen sections showed that papillary and follicular carcinoma strongly expressed CD26/DPPIV in almost all cases, whereas the expression levels in benign thyroid lesions were low or less. Both in immunohistochemical and immunocytochemical analysis using CD26/DPPIV monoclonal antibody, papillary and follicular carcinoma was positively stained in almost all cases, and adenomatous goiter and Graves’ disease showed a low positive rate. Follicular adenomas responded to this antibody in a relatively high incidence. Among them, follicular adenoma with incomplete capsular invasion had a higher positive rate (50%, 4 of 8) than follicular adenoma without capsular invasion (9.6%, 5 of 52). The result suggests that the former have a higher potential to become malignant. Northern blot and reverse transcriptase-polymerase chain reaction (RT-PCR) analysis revealed that CD26/DPPIV is a more specific marker for papillary carcinoma and follicular carcinoma. Overall, the results of activity staining, immunostaining, mRNA and RT-PCR analysis of CD26/DPPIV were well correlated with each other. Southern blot studies showed no gene amplification or major translocation of the CD26/DPPIV gene. Based on these studies, ectopic expression of CD26/DPPIV in differentiated thyroid carcinomas is thought to be mainly caused by increased CD26/DPPIV mRNA expression. In conclusion, staining activity of CD26/DPPIV is a simple, but specific method that should be added to the cytologic and pathologic examinations in order to distinguish the differentiated thyroid carcinomas from the benign thyroid diseases. Furthermore, CD26/DPPIV may be a useful marker for evaluating the aggressiveness and prognosis of thyroid tumor, because CD26/DPPIV seems to be newly expressed in the differentiated carcinoma and subsequently down-regulated during dedifferentiation.

From Kawasaki University of Science and Arts, Okayama, Japan.

CYTOTECHNOLOGIST OF THE YEAR 2006

AW-02 LABORATORY UTILIZATION AND SERVICES IN RESOURCE-LIMITED SETTINGS

T. Sonneck

One of the most important elements in health care delivery is the use of laboratory test results. Laboratory test results are an integral part of a treatment plan because they diagnose as well as monitor disease and disease progression. The laboratory provides information to clinicians in making decisions about treatment regimens. A commitment to regularly use the clinical laboratory is an important way to enhance and improve health care delivery systems. However, in resource-limited settings, syndromic diagnosis of diseases without laboratory confirmation has been an accepted standard of care that often leads to misdiagnosis and negative consequences. Laboratory capacity is inadequate because of limited resources, both human and material, and is a barrier to proper utilization of the clinical laboratory. Most laboratories in developing countries lack the access to the proper tools such as equipment, reagents and supplies, as well as lack access to education opportunities for their staff. In resource-limited countries, accurate diagnoses and the subsequent management of diseases are compromised by the lack of sustained training for pathologists and other laboratory professionals. Laboratories services will have an increasingly important role in improving the quality and effectiveness of patient care. Governmental and nongovernmental organizations support resource-limited countries and their laboratorians by developing training tools and providing technical assistance, to deliver and sustain education and knowledge transfer to laboratory personnel. These strategies are intended to assist countries in scaling up the laboratory capacity by ensuring consistency and quality in the implementation of laborato-