The dermatopathology of HIV/AIDS: Lessons learned

More than 90% of patients with HIV/AIDS will develop mucocutaneous complications during the course of their illness and skin disease may be a presenting feature of undiagnosed HIV/AIDS. Skin biopsy is an inexpensive yet invaluable diagnostic tool, whose greatest value resides in facilitating early identification of unsuspected and potentially lethal opportunistic pathogens. Relevant histochemical stains, immunohistochemical studies and/or ancillary molecular investigations studies may be carried out on formalin-fixed, paraffin-embedded skin biopsy material and serve as an adjunct to more precise diagnosis of certain infective or neoplastic conditions. The pathologist must remain cognizant that certain conditions may present with atypical clinical and/or histopathological features. The possibility of an adverse drug reaction should always be considered in the differential diagnosis of inflammatory dermatoses. Knowledge of the CD4 count, viral load and antiretroviral therapy status is important in determining whether or not the cutaneous findings are a potential manifestation of the immune reconstitution inflammatory syndrome. Shave biopsies should be discouraged as these are often not sufficiently representative. Examination of multiple serial sections is essential, especially when a folliculocentric process is suspected. It is prudent to recommend that additional biopsies be performed for microbiological examination, where necessary. A comprehensive panel of special stains should always be carried one when an infection is suspected, bearing in mind that the histological picture may differ significantly from that encountered in non-immunocompromised hosts (e.g., mycobacterial infection exhibiting abscess formation instead of granulomatous inflammation). Although rare, skin biopsies may declare more than one pathological process; it is, therefore, critically important that tissue sections are carefully scrutinized for the presence of dual or multiple pathological processes (e.g., coincidental cryptococcosis or tuberculosis in a biopsy for confirmation of Kaposi sarcoma). Awareness of the spectrum of recently described Kaposi sarcoma variants is required. The importance of careful clinico-pathological correlation cannot be overstated.

wayne.grayson@live.com

Wayne Grayson
University of the Witwatersrand, South Africa

Biography:
Wayne Grayson has obtained his undergraduate Medical degree from the University of the Free State in South Africa (S.A). He has received his Specialist training in Anatomical Pathology at the University of the Witwatersrand, Johannesburg (WITS) and the S.A. Institute for Medical Research, and he was awarded with PhD in 2001. He left full-time Academic Practice in 2008 to join Ampath National Laboratories, but continues to serve as an Honorary Professor in the School of Pathology at WITS University. He is a Member of the Executive Committee of the International Society of Dermatopathology, Representative for Africa on the International Committee for Dermatopathology, and an Editorial Board Member of the American Journal of Dermatopathology. He is the author of chapters on infectious diseases and HIV/AIDS-related skin pathology in McKee’s Pathology of the Skin with Clinical Correlation, and one of the co-authors of the book entitled Kaposi Sarcoma: A Model of Oncogenesis.