CORRELATION BETWEEN AIDS-RELATED KAPOSI SARCOMA HISTOLOGICAL GRADE AND IN VITRO BEHAVIOR: REDUCED EXOGENOUS GROWTH FACTOR REQUIREMENTS FOR ISOLATES FROM HIGH GRADE LESIONS


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ABSTRACT

Kaposi sarcoma, the most common AIDS-associated malignancy, affects 10-30% of all AIDS patients. To date, research into the biological characteristics of AIDS-related Kaposi sarcoma (AIDS-KS) derived cell lines has been based on cultures established from skin explants or pleural effusions/peritoneal fluids. We have established several AIDS-KS lines from biopsy confirmed oral mucosal and epidermal AIDS-KS lesions and have found a correlation between AIDS-KS lesional grade and IN VITRO cellular growth characteristics. In comparison to epidermal AIDS-KS lesions, mucosal AIDS-KS lesions frequently possessed both a more advanced histologic grade and demonstrated a greater capacity to proliferate in minimal medium. We report the ability of AIDS-KS isolates from high grade lesions to sustain proliferation (greater than 60 population doubling levels) in medium not supplemented with endothelial cell growth supplement and/or cytokine rich conditioned medium. These findings indicate that AIDS-KS cells isolated from high grade lesions have reduced requirements for exogenously provided growth supplements, and suggest that increased autologous cytokine production accompanies AIDS-KS lesional progression.