

IMMUNOHISTOCHEMICAL DETECTION OF IMMEDIATE EARLY AND LATE PHASE PROTEINS EXPRESSED DURING THE VARICELLA-ZOSTER VIRUS CYCLE.

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The Varicella-Zoster Virus (VZV) infection cycle is regulated as a cascade involving three consecutive phases, namely the immediate early, early and late phases. The aim of this investigation was to compare the patterns of immunostaining of the protein IE63 and glycoproteins gpl and gpII, which are respectively expressed in the immediate early phase and late phase. The ABCAP technique was applied to 12 smears and 8 biopsies taken from herpes zoster lesions, using the Pab anti-IE63 and the Moab VL8 and VL2 respectively and specifically directed to gpl and gpII.

VL8 and VL2 immunostaining on smears revealed cytoplasmic and membranous positivity in infected keratinocytes while IE63 was expressed in the nuclei. On serial histological sections, IE63 was found in the same keratinocytes where gpl and gpII were expressed. IE63 was also present in nuclei of keratinocytes without gpl and gpII expression and without any cytopathic changes.

We conclude that VL8, VL2 and anti-IE63 are of identical diagnostic value on Tzanck smears and histological sections of vesicular lesions. Anti-IE63 is, however, recommended in early erythematous non vesicular stage of VZV when standard histology do not reveal the typical cytologic changes of herpesviridae infection.