SKIN CANCER (OTHER THAN MELANOMA)

# HUMAN PAPILLOMAVIRUS (HPV) AND KERATINOCYTE SKIN CANCERS: COMPARISON BETWEEN SQUAMOUS CELL CARCINOMA AND KERATOCANTHOMA.

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Introduction: The term keratinocyte skin cancer stands as an umbrella for different stages within the progression of cutaneous squamous cell carcinoma (cSCC). Its earliest form is named actinic keratosis (AK), while for the in-situ form different synonyms are currently used. These are intraepidermal carcinoma (IEC), Bowens' Diseases (BD) and cutaneous squamous cell carcinoma in situ (cSCCis). Furthermore, SCC is classified into well differentiated, moderate and poorly differentiated SCC. Currently, the well differentiated SCC is named Keratoacanthoma (KA). For this study, we defined tumors arising in association with actinic keratosis (AK) as well-differentiated SCC, while those developing in the absence of AK were KA..

Objective: The purpose of this study was to detect the presence (HPV DNA) and the expression (HPV RNA) of HPV in the cSCC and KA lesions of immunocompetent patients.

Materials and Methods: Paraffin samples of SCC and KA lesions were collected from 44 immunocompetent patients (22 well- differentiated SCC versus 22 KA) attending the Dermatology Clinic of Campus Bio-Medico in Rome. The presence of HPV DNA was detected by the poly¬merase chain reaction (PCR) and rolling circle amplification (RCA). Nested PCR was per¬formed for the detection of cutaneous HPV and mucosal HPV.

Results: HPV DNA analyses showed the presence of HPV in 97% of KA and 60% of SCC; the differences reached statistical significance (Fisher test, p-value: 0.0001).

Conclusions: Data from our study showed an increased presence of HPV-DNA in KA samples. The identification of a such large difference positivity to HPV-DNA between KA and SCC suggests a greater involvement of HPV in KA development than ultraviolet rays, proposing new treatment and prevention options for the future.