

INTERSTITIAL CYSTITIS (IC): IMMUNE HISTOCHEMICAL PROOF OF HUMANE PAPILOMA VIRUSES (HPV) IN BLADDER BIOPSIES

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INTRODUCTION & OBJECTIVES: There are still many questions concerning the etiology of the symptom complex IC. Mast cells play a key role by degranulating different vasoactive and nociceptive substances that keep the inflammatory process active. The triggers of mast cell secretion are cytokines, hormones, cationic peptides, bacterial toxins and viruses. We investigated whether human papiloma virus (HPV) mediates mast cell activity in our study population.

MATERIAL & METHODS: We examined 40 women and 3 men with symptoms of IC defined by the national institut of diabetes, digestive and kidney diseases (NIDDK). All underwent systematic bladder biopsies with a cold loop. In 34 cases a significant mast cell density was found in the sub epithelium by GIEMSA-staining. In addition a nerve fiber sprouting in the tissue samples by S 100 immune histochemistry. These 34 cases were further analyzed by immune histochemistry for HPV (type 11,6,18) activity.

RESULTS: In 70% of the study population a HPV activity was found. The highest activity was found in the mast cells. Controls of 12 unspecific cystitis, 18 cystectomy specimens of bladder cancer, 10 vaginal samples as well as 9 other mastocytosis sample were so far negative for HPV.

CONCLUSIONS: HPV (type 11, 6, 18) seems to be present in the mast cells of IC. The next step is a molecular biological test, in order to define the detailed role of HPV as possible trigger in the ethologic cascade of IC.