and was not observed with extracts from uninfected or DEX-treated animals. This indicates that AAV induces soluble cellular factor(s) in vivo capable to mediate down-regulation of the HPV-18 promoter also in cells in vitro. In contrast, promoters of the low risk HPV types (HPV-6, HPV-11) were not influenced by AAV infection as opposed to promoters of the high risk types (HPV-18 and HPV-16).

82 POSTER DISCUSSION

### Papillary thyroid carcinoma: RET/PTC rearrangement as age-related lesion

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Structural rearrangements of the RET gene leading to its oncogenic activation are involved in papillary thyroid carcinogenesis (PTC). However, their contribution varies widely in different populations with the highest one among children with radiation history. There are also some controversies about the correlation between RET/PTC presence and clinical stage.

To evaluate the frequency of RET rearrangements in Polish population we investigated 73 PTC samples from three groups of patients: younger than 21 (n=28), aged 21-40 (n=22) and 40-50 (n=23), without known radiation exposure in 72 of them. RNA extracted from frozen tissues was reverse-transcribed and RT-PCR was performed to amplify specific transcripts for 7 RET/PTC types (PTC1 - PTC7). The method of multiple PCR allowed also detection of unidentified RET rearrangements.

The presence of rearranged form of RET was detected in 20 samples (27%) and the types identified were: RET/PTC3 or RET/PTC3del (50%), RET/PTC1 (30%) and unknown (20%). The frequency was highest in the youngest patients (50%) and RET/PTC3 was prevalent in this age group (64%). In 21-40 year old patients we found activated RET in 27% cases, mainly RET/PTC1 (66%). None among PTCs from the 40-50 year group was positive for RET rearrangement. The presence of RET/PTC was correlated with lymph node metastases and distal metastases ($p<0,05$ by Fisher's Exact test). A coincidence of RET/PTC with follicular subtype of papillary thyroid carcinoma was borderline significant ($p=0,09$).

In summary, RET/PTC oncogene rearrangements were found with high frequency in the young PTC patients without radiation history. We hypothesize that the incidence of RET/PTC mutations is primarily age-dependent and this is the reason, why they are seen in young patients with radiation-induced papillary thyroid carcinoma.

# Plenary Lecture

83

### AIDS and cancer

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Certain types of cancer have long been associated with inherited and acquired immune deficiencies, for example in immunosuppressed transplant patients. The same malignancies have an increased incidence in HIV-persons progressing to acquired immune deficiency syndrome (AIDS). By far the most prevalent cancers in AIDS are (a) Kaposi's sarcoma (KS) and (b) non-Hodgkin's lymphoma (NHL). The underlying causes of KS and AIDS-NHL are Kaposi's sarcoma herpesvirus 8 (KSHV or HHV-8) and Epstein-Barr virus (EBV or HHV-4). Whereas EBV infects the majority of humankind worldwide, KSHV infection has a more restricted geographic distribution and prevalence. KSHV is associated with all epidemiologic forms of KS and also with primary effusion lymphoma and plasmablastic multicentric Castleman's disease. The molecular and cell biology of KSHV infection will be briefly reviewed in reference to cancers linked to AIDS.