

P034

Novel Association of Caveolin-1 (CAV1) Genotypes with Upper Tract Urothelial Cancer Risk

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Backgrounds: Upper tract urothelial cancer (UTUC) is of unusual high incidence in Taiwan and it is valuable to study the specificity of Taiwan and compare in West countries. It was reported that genotyping of *CAV1* plays an important role in several types of cancer risk but no report about UTUC. The aim of this study was to evaluate the association of six polymorphic genotypes of *CAV1* with UTUC within a Taiwanese population. **Materials and Methods:** 218 patients with upper tract urothelial cancer and 580 healthy controls were genotyped for rs1997623, rs3807987, rs12672038, rs3757733, rs7804372, and rs3807992, of their association with UTUC susceptibility. **Results:** The distribution of genotypes of *CAV1* rs3807987 and rs7804372 were significantly different between UTUC patient and control groups. The haplotype analysis of the two polymorphic genotypes showed that compared with "GG/AT or GG/AA" haplotype of *CAV1* rs3807987/rs7804372, people carrying GG/TT, AG/TT and AA/TT variants have significant increased risk of UTUC risk. **Conclusion:** Our results suggested that individual and combined *CAV1* rs3807987/rs7804372 genotypes being involved in predisposition to UTUC.