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Molecular Oncology

An Update in Clinical Application

Insight On Infection Related Oncology

October 5-7, 2012

2nd BANDUNG BIOMOLECULAR MEDICINE CONFERENCE

Conference Book

Presented By



Faculty of Medicine
Padjadjaran University
Bandung, INDONESIA





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FULL PAPER



**Faculty of Medicine
Padjajaran University
Bandung, INDONESIA**

INTRATYPIC VARIANTS IN CAPSID PROTEIN GENE L1 OF HPV-16 FROM BANDUNG ISOLATES

Edhyana Sahiratmadja^{1,2}, Ani Melani Maskoen^{1,2}, Herman Susanto^{2,3}

1. Dept. of Biochemistry, Faculty of Medicine Universitas Padjadjaran, Bandung Indonesia

2. Health Research Unit, Faculty of Medicine Universitas Padjadjaran, Bandung Indonesia

3. Dept. of Obstetrics and Gynecology, Faculty of Medicine Universitas Padjadjaran / Rumah Sakit Hasan Sadikin, Bandung Indonesia

Objective. Cervical cancer is associated with persistent high risk human papillomavirus (HPV) infection, with the most common infection by HPV-16 and -18. The vaccine available commercially at the moment contains major capsid protein L1. The L1 gene of PV has several intratypic variants. Interestingly, a specific Javanese variant 6828 T in L1 was published recently. This study aimed to explore further about the Javanese variant in L1 HPV-16 in Sundanese samples.

Methods. DNA samples from biopsy of positive HPV-16 cervical carcinomas from Bandung, Indonesia (n=9) were amplified using primers specific for the L1 regions. Products were sequenced and analyzed.

Results. The sequence of L1 HPV-16 showed intratypic variants among the samples. The Javanese variant 6828T in L1 region was found in 4 of 9 samples. Compared to the reference published in Genbank, our samples have deleted regions and insertions.

Conclusion. The majority of the positive HPV-16 cervical cancers from Bandung, Indonesia has variants that might be associated with the ethnicity of the patients, leading to vaccine design in certain population. Further bioinformatics assessment for epitopes prediction as vaccine development need to be explored in region where the HPV prevalence is high.