

# 14<sup>th</sup> World Cancer & Anti-Cancer Therapy Convention

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### Oncolytic virotherapy with Rigvir®

**Statement of Problem:** Melanoma is one of the fastest growing cancers and has the highest mortality-rate of skin cancers. The oncolytic property of viruses has been observed for over a century and is presently intensively studied. Rigvir® is the first registered oncolytic virus and the only one approved that has not been genetically modified. It is an ECHO-7 virus registered for melanoma therapy. The present retrospective study was made to determine the effectiveness of Rigvir® in sub-stage IB, IIA, IIB and IIC melanoma patients on overall survival.

**Methodology & Theoretical Orientation:** Caucasian patients (N=79) who had surgical excision of the primary melanoma tumor and histologically verified diagnosis were included in the study. Circulating levels of clinical chemistry parameters were recorded. Survival was analyzed by multivariate Cox regression. Current guidelines for melanoma advise no treatment for patients who are classified into sub stages IB and IIA. Patients in sub-stages IIB and IIC were given three options: Participation in a clinical trial, observation, and interferon. Thus, 52 study participants received Rigvir® and 27 were observed according to guidelines. Due to the low number, the patients treated with interferon are excluded. The study was approved by the respective ethics committee.

**Findings:** Rigvir® significantly prolonged survival in sub-stage IB-IIC melanoma patients following surgery compared to patients who were under observation. The hazard ratio (HR) for patients under observation vs. treated with Rigvir® is statistically significantly different: HR 6.27 for all, 4.39 for sub-stage IIA-IIB-IIC and 6.57 for sub-stage IIB-IIC patients. Safety assessment of adverse events according to NCI-CTCAE did not show any value above grade 2 in Rigvir® treated patients.

**Conclusions & Significance:** These results show that the patients treated with Rigvir® had 4.39-6.57 times lower mortality than those under observation. In this study, there was no untoward side effect or discontinuation of Rigvir® treatment.

### Recent Publications

Doniņa S, Strēle I, Proboka G, Auziņš J, Alberts P, Jonsson B, Venskus D and Muceniece A (2015) Adapted ECHO-7 virus Rigvir immunotherapy (oncolytic virotherapy) prolongs survival in melanoma patients after surgical excision of the tumor in a retrospective study. *Melanoma Research* 25:421–426.

### Biography

Simona Doniņa, Assoc. Prof., Latvian Oncology Centre, is Oncologist and Immunologist at the Institute of Microbiology and Virology of Riga Stradiņš University, with over 20 years of experience in Clinical Oncology. She is author of 11 scientific publications indexed in PubMed.

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