

CISPLACEL - DOMESTIC ANTI-TUMOR DRUG WITH PROLONGED ACTION FOR LOCAL CHEMOTHERAPY OF MALIGNANT BRAIN TUMORS AND HEAD AND NECK TUMORS

Bychkovsky P.M., Yurkshtovich T.L., Kaputsky F.N., Belyaev S.A., Adamchik D.A., Zhavrid E.A., Sheleg S.V., Shanko J.G., Wakker AV., Shylga P.N.

Research Institute for Physical Chemical Problems of the Belarusian State University, RSPC of oncology and medicine radiology of Aleksandrov N.N., RSPC of neurology and neurosurgery, Unitary enterprise «Unitechprom BSU»

New original antitumoral drug Cisplacel (Patent RB № 6420) was developed in the frames of the State Scientific-Technical Program «New Medicines» (2006 - 2010 gg.). Cisplacel is the biodissolved napkin from the oxidized cellulose with immobilized cisplatin. It is intended for local chemotherapy of malignant neoplasms of the brain, head and neck and in perspective in the chemotherapy of the tumors with other localization.

The result of the experiment in vitro and in vivo shows that Cisplacel effectively suppresses tumor cell growth and does not cause expressed neurotoxic effects on the intact tissue at the implantation places and remote areas of the brain.

In the results of clinical trials it was established that in case of local Cisplacel application in the field of remote non-radical primary and recurrent head and neck tumors (65 patients) the quantity of totally cured patients is equal to 51% and the quantity of recidivating is reduced into two times in comparison with traditional treatment. Cisplacel usage in case of combined treatment (implantation of the drug in the tumor bed remote + radiotherapy) for the 95 patients with poorly differentiated cerebral gliomas (Grade III-IV) has led to the significant increase the duration of the recurrence-free period from $31,9 \pm 2,8$ weeks to $50,8 \pm 3,2$ weeks ($p < 0,05$) and increase the life of the patients from $211 \pm 21,4$ to $427,5 \pm 28,4$ days.

Cisplacel production is organized on the base of Unitary enterprise «Unitechprom BSU». The accretion of the production volume proceeds in the frames of the Program of innovation development of the Republic Belarus on the 2011-2015 yy. Starting from the 2010 y. Cisplacel is used in the special health care institutions of the Republic of Belarus as a remedy for local chemotherapy of malignant brain tumors, head and neck.