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 ± 2,8 weeks to 50,8 ± 3,2 weeks (p <0,05) and increase the life
of the patients from 211 ± 21,4 to 427,5 ± 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.