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Poster Presentation

Study of Antioxidative Properties of a New Phytocomplex, Obtained from Bark of Larch *Larix sibirica* Ledeb

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A waste of timber industry is a source of natural compounds, valuable for medicine. Dehydroquercetin, obtained from larch timber, is the substance of Diquertin, possessed antioxidative, capillary- and hepatoprotective capacity. No less then a timber, a larch bark is a valuable raw material with a number of active biological substances, still have not been used enough. Recently the technology of obtaining a complex of phenolic compounds from a larch bark was developed in Irkutsk Institute of Organic Chemistry SB RAS. The phytocomplex (PhC) consists of natural phenolic acids, olygomer proantocyanidines, mono and dymer flavonoids. The aim of present research is to study an antioxidative properties of PhC *in vivo* (under a models of toxic and drug hepatitis) and *in vitro* (under a model of heating liver ischemia) experiments.

A toxic hepatitis was induced by subcutaneous injection of CCl_4 (20 and 5% olive oil solutions). A drug hepatitis was induced by oral administration of paracetamol (at total dose 2000 mg/kg). PhC was administrated orally during 5-9 days at 100 mg/kg dose. Diquertin (DQ) was used as the reference drug at the same dose. Wistar rats of 180-220 body weight were used in all experiments. Antioxidant effect *in vivo* was determined as decreasing levels of transaminase (ALT) and molondialdehyde (MDA) in blood serum. Antioxidative effect *in vitro* was determined as delay MDA production in liver incubates, as a result of spontaneous (SPOL) and ascorbat-depending (APOL) lipid peroxidation. Antioxidative activity of PhC (50 mg/kg) was compared with the same ones of DQ (50 mg/kg) and α-tocopherol (100 mg/kg).

It was found, that PhC, so as PQ, decreased ALT and MDA levels in blood of animals with toxic hepatitis. It also diminished MDA concentration in liver more over then PQ in animals with paracetamol hepatitis. PhC decreased SPOL at the same level as DQ and α-tocopherol done and decreased APOL as DQ done. It is concluded, that antioxidative properties of a new phytocomplex from bark of a larch *Larix sibirica* Ledeb are just as good, as Diquertin.