

Digidroquertsetin as Adaptive Structurally-metabolic Tsitoprotektor of the Tissues of Skin.

Dorovskih V. A. , Tseluyko S. S. , Timofeev K. V.
Amur State Medical Academy, Russia.

Abstract: Digidroquertsetin (DKV) is a part of group of polyphenolic bonds-flavonoids which are widely widespread in an empire of plants. Now it is known nearby 3 000 flavonoids. Many of them have a hypotoxicity for animals and the person and many of them are used in medicine for improvement of microcirculation. Flavonoids possess various biological effects, as antiinflammatory and antitumoral. Alongside with it they possess the expressed antioxidatic activity. Many possess antiallergic antiviral action. It has been shown in-vitro, that they inhibit development of various tumoral cells and slow down development of tumours in experimental animals Digidroquertsetin (taxifolin) 2,3 - dihidro - 3,5,7-hidrooksi -2 - (3,4-dihidrooxifenil) 4H-1-benzopiran-4-it-concerns to enough limited on number of representatives to group flavonoids and differs a wide spectrum of biological activity.

Digidroquertsetin - flavonoids bond of wood of a larch, its maintenance makes the basic up to 3,5 % from mass of absolutely dry wood.

Now it is established, that this bond is widespread widely enough, but its industrial reception is possible only from wood of a larch Siberian and Daur. Wood of a larch Siberian contains up to 2,5 % flavonoids which are presented basically DKV, Quercetinum, dihidrokemferols and naringenin, and the maintenance DKV in wood of a larch can reach 90 % from the sum flavonoids.

DKV as the substance, is close on a structure of a molecule to Rutinum and Quercetinum, possesses the expressed P-vitamin activity. These substances - Rutinum, Quercetinum for a long time were used in a clinical practice (P-vitamin activity) with the purpose of strengthening of a wall of vessels, decrease of inflammatory and allergic reactions.

At studying safety DKV in experiences on various kinds of laboratory animals it is established, that it is nontoxical a preparation, does not influence genesial function of animals, does not possess mutagen, embryonal, immunologic and allergenic properties.

Key words: As a result of experimental studying DKV it has been shown, that the preparation possesses antioxidatic properties, vascular and the antiedematous activity surpassing activity of Quercetinum. DKV activates processes of neogenesis mucous a stomach, renders antitoxic action, shows diuretic properties.

1. Research problems

To establish morphological criteria of changes of structure of a skin of extremities of experimental animal (rats) at local action of low temperatures with the subsequent warming at corrections DKV.

2. Methods of research

Experimental - cold influence (local cooling of an extremity), warming, pharmacological correction DKV. Histological - a fence of a material (micromicroscopical preparing), bracing, a staining: painting He-

matoxilin-eozin, a light microscopy of sections. Analytical - a morphometry, the stereologic analysis, statistical processing of the received data.

3. Discussion of the received results

After the general deep cooling an organism it is possible to allocate in reaction of a skin two phases. The first (hyporeactive) phase includes immediately process of cooling-warming and the first hours after it. Changes in a skin thus in many respects are similar at animal all age groups and quantities of lymphocytes of a false skin and fabric basofils a papillary layer of a derma, to depression of quantity basal keratinocytes are reduced to decrease of number and dendrocytes. The second phase is necessary for later posthypothermal period (the extremity 1 - 30 day) and is characterized by augmentation of some the studied parameters. At puberal animal (rats) number and functional activity of immunocompetent cells in a false skin in the posthypothermal period decreased, mitosis reducing influence on basal keratinocytes decreased, and in separate terms of the posthypothermal period their mitotic activity increased, that entailed a thickening of a false skin so ascending of its protective properties occurred to attraction of mechanisms nonspecific are sewn up.

On a background of action DKV there is a prevention of changes of a skin bound with action of a cold and normalization of parameters oxidations stress.