



Thus, under conditions of spontaneous diuresis trental and xanthinol nicotinate increase the excretion of potassium ions after being injected for a long period of time. Potassium-uretic effect of xanthinol necotinate has been proved to be less significant in comparison with trental concerning the safety of preparation.

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**DETECTION AND QUANTIFICATION OF POLYSACCHARIDES IN MEDICINAL RAW OF PEONY
SORTS «ALBA PLENA» AND «ROSEA RLENA»**

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Peony (*Paeonia officinalis* L.) is a perennial herb of the Paeoniaceae family. In folk medicine roots and rhizomes are widely used as analgetic, anticonvulsant, anti-inflammatory, sedative, expectorant, diuretic, antispasmodic, hemostatic agent.

The analysis of published data shows that the chemical composition of roots and rhizomes of peony is represented by such class of biologically active compounds as simple phenols, flavonoids and tannins.

In Ukraine many varieties of ornamental peony grow, the most popular are «Alba plena» and «Rosea plena». Therefore, a phytochemical study of the leaves and rhizomes with roots of varieties of cultivated peony is very important to expand the resource base of medicinal peony and conservation of wild specimens of plants. Water extracts were obtained to identify the polysaccharides in the studied raw material. The presence of polysaccharides confirmed by adding fourfold volume of 96% ethanol, as the result the formation of opalescence was observed. To determine the nature of these polysaccharides qualitative reactions were conducted.

Reaction with 5% sodium hydroxide – in the extract from the rhizomes with roots of both species a light brown color and yellow-green in the extract from the leaves were seen. White voluminous precipitate was formed after adding 10% solution of lead acetate to the colored solution. Reaction with concentrated hydrochloric acid – the extract from the rhizomes with roots of leaves of peony varieties «Alba plena» and «Rosea plena» was of a light yellow color. After adding ethanol opalescence was formed. Thus, in all the studied feedstocks of peony the presence of mucus was found.

The quantitative content of polysaccharides in leaves and rhizomes with roots of peony varieties «Alba plena» and «Rosea plena» was determined by gravimetry method. The results of quantitative determination of polysaccharides content in raw material of peony varieties «Alba plena» and «Rosea plena» are given in the table.

Table

The quantitative content of polysaccharides in leaves and rhizomes with roots of medicinal peony varieties «Alba plena» and «Rosea plena»

Numbers	Raw material	Quantitative content of polysaccharides % in terms of absolutely dry raw material (m = 5)	
		Sort «Alba plena»	Sort «Rosea plena»
1.	Leaves	6,69±0,30	5,53±0,25
2.	Rhizomes with roots	4,81±0,21	5,61±0,27

Note. Probability of error $P \leq 0,05$

As the table shows, the greatest number of polysaccharides accumulate in the leaves of peony of sort «Alba plena», and the smallest – in roots with rhizomes of peony of the same kind.

Therefore, this study enables to recommend the leaves and roots with rhizomes of peony varieties «Alba plena» and «Rosea Plena» for further depth phytochemical study to develop projects of quality control methods and new effective domestic drugs.

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PREVENTION OF GENTAMICIN-INDUCED KIDNEY INJURY BY PINEAL TETRAPEPTIDE

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Kidney injury of different degree occurs in 30% of patients treated with aminoglycosides for more than 7 days, being the reason for serious limitation of their use (A. Muthuraman et al., 2011). Search for drugs able to mitigate the toxic effects of aminoglycosides is an active area of research (B.H. Ali et al., 2011).

The aim of our study was to estimate the nephroprotective potential of tetrapeptide AEDG (L-alanyl-L-glutamyl-L-aspartyl-glycine) synthesized in the St.-Peterburg Institute of Bioregulation and Gerontology (RF) on a model of gentamicin-induced kidney injury in rats.

Experimental study was conducted on 21 non-linear white rats weighting 150-180 g, divided into three groups (n=7): I group – control, II group – animals with gentamicin-induced kidney injury caused by administration of 4% gentamicin sulfate solution in dose 80 mg/kg once a day during 6 days. Animals of the III group received AEDG (7 µg/kg, i.p.) after each gentamicin injection. Kidney function was assessed by diuresis, glomerular filtration rate (GFR), plasma creatinine concentration, urine protein excretion and fractional excretion of sodium. Histopathological