

UDC:619:615.015.32:636

## EFFECT OF HOMEOPATHIC PREPARATIONS ON INTACT ANIMALS

**Korytnyak A.**

Odesa State Agrarian University

*When using homeopathy, there is one fundamental difficulty - the idea of the action of certain drugs is not clear and it is difficult to imagine their involvement in biochemical and chemical reactions of the organism. Precisely the absence of clear guidelines on the pharmacokinetics of homeopathic remedies is the reason that homeopathic pharmacokinetics has an undefined position in scientific medicine.*

**Key words:** dogs, homeopathic preparations

**Introduction.** More than two centuries ago S.Ganeman systematizing experience with medicines at very high dilutions by the principle of similarity, has created a scientific field in medicine called homeopathy. Everyday medical practice shows that homeopathic medicines are biologically active and clinically effective. But until now, homeopathy has an undefined position in scientific medicine.

Therefore, it remains an urgent task - to study the action of homeopathic remedies on the various systems of the body. And one of the ways of this study is to examine the changes in clinical and biochemical parameters of blood in the application, in this case - Berberis Gomakord and Kantaris Compositum on clinically healthy animals. Cantharis D4, Arsenicum album D4, Hepar sulfuris D6, Mercurius solubilis Hahnemanni D6 ana 0.05 ml are parts of Cantaris Compositum. The main indications for use are cystitis, inflammation of the kidneys (nephritis). Dysfunction of the urinary tract, acute and chronic inflammation of the renal pelvis. Cystopyelitis, pyelitis, the cystic renal bleeding, tenesmus of the bladder. Painful urination, urinary retention.

Berberis D4, D10, D30, D200 ana 0,02 ml; Colocynthis D4, D10, D30, D200 ana 0,015 ml; Veratrum D5, D10, D30, D200 ana 0,015 ml are parts of Berberis Gomakord. One of the indications for the use of Berberis-Gomakord are inflammation and irritation (with or without calculi) in the urogenital system. Renal colic, tsistopielitis, nephrosis, urolithiasis (particularly phosphates), cystitis.

With the help of homeopathic dilutions of preparations components Berberis Gomakord and Kantaris Compositum, therapy is performed in which the body's immune activated and the removal of adsorbed toxins in the body through natural ways of excretion is enhanced. Thus, weakened functions of organ are regulated the duration of treatment in acute cases shortens and the condition of chronic and

recurrent processes improves. The pharmacological activity of the preparations with prolonged use is not reduced. The components that make up the preparations in ultralow doses in the animal body are not accumulated and do not possess toxic effects.

An injectable solution is administered intravenously, intramuscularly, subcutaneously. In accordance with the size of the animal a single dose of 0.5 to 10ml. In severe cases, the dose is repeated every 24 hours. During the chronic, recurrent, long-term treatment the dose was repeated every 4 days. Preparations are issued in glass ampoules of 5 ml of a clear liquid. They are stored in a dark place away from the various types of radiation within 5 years from date of manufacture.

**Aims and objectives.** The study of the pharmacological action of selected preparations Berberis Gomakord and Kantaris Compositum on clinical and biochemical parameters of intact animals.

**Material and methods.** For research 3 groups of dogs were created (2 groups – experimental, 1 - control), 5 dogs in each, at the time of the study they were clinically healthy. Dogs were selected with the same weight (8.5 kg) and age (2-4 years) categories. On the 1st, 3rd, 6th days the dogs were injected subcutaneously with homeopathic medicines Berberis Gomakord (an experimental group №1) and Kantaris Compositum (an experimental group №2) at a dose of 1.5 ml per animal. Homeopathic preparations were not administered to the control group of dogs (group №3).

To determine the dynamics of morphological and biochemical parameters of blood in dogs of all groups, blood was collected for laboratory tests on 1st, 3rd, 6th and 30<sup>th</sup> days of research. The results of studies presented in Table №1, №2, №3.

Table №1

## Biochemical parameters of clinically healthy animals

Blood indices	Norm	Group of animals	Day of the research			
			1	3	6	30
Glucose, mmol/l	4.3-7.3	1	5.25 ±0.01	5.45 ±0.03	5.65 ±0.02	5.5 ±0.01
		2		4.97 ±0.03	4.55 ±0.02	4.98 ±0.01
		3		5.3 ±0.001	5.3 ±0.01	5.25 ±0.01
Creatinine, mmol / L	26-120	1	52.6 ±0.21	60.8 ±0.41	68.3 ±0.62	56.3 ±0.07
		2		65.75 ±0.23	53.35 ±0.21	47.75 ±0.02
		3		52.7 ±0.35	53.05 ±0.29	53.3 ±0.36
Urea, mmol / l	3.5-9.2	1	6.8 ±0.001	6.85 ±0.01	6.55 ±0.002	6.65±/-0.02
		2		6.1 ±0.01	5.75 ±0.1	5.75 ±0.02
		3		6.85 ±0.01	6.8 ±0.001	6.95 ±0.04
alkaline phosphatase, U / L	18-75	1	46.25 ±0.95	48.55+/-0.24	48.05+/-0.27	44.1+/-0.91
		2		49.65 ±0.81	47.5 ±0.19	38.5 ±0.27
		3		45 ±0.92	44 ±0.92	48.5 ±0.69
Amylase, U / L	685-1800	1	1196 ±6.44	1228+/-19.8	1270+/-16.2	1249+/-12.6
		2		1050 ±10.78	1081 ±5.43	1029.5 ±0.4
		3		1291 ±3.76	1285 ±3.64	1299 ±8.53
Tot. protein, U / L	40-73	1	65.25 ±0.09	62.1+/-0.08	60.1+/-0.16	57.9+/-0.17
		2		62.45 ±0.15	63.25 ±0.11	72 ±0.04
		3		70.05 ±0.05	69.65 ±0.06	69.5 ±0.06
Albumin, U / L	22-39	1	34.25 ±0.01	33.2+/-0.01	31+/-0.07	29.4+/-0.08

		2		30 ±0.08	32.05 ±0.01	32.7 ±0.06
		3		36.35±0.07	36.35 ±0.07	36.55 ±0.06
Globulin U / L	25-42.5	1	31 ±0.08	28.9+/-0.06	29.1+/-0.09	28.5+/-0.09
		2		32.45 ±0.07	31.2 ±0.1	39.8 ±0.13
		3		33.6 ±0.03	33.3 ±0.01	32.95 ±0.001
Tot.bilirubin,mmol/L	3-13.5	1	7.9 ±0.05	7.45+/-0.02	7.55+/-0.02	7.35+/-0.03
		2		8 ±0.05	7.95 ±0.04	7.35 ±0.01
		3		7.85 ±0.01	8.15 ±0.01	8.15 ±0.01
AST, U / L	11-42	1	32.2 ±0.43	29.4+/-0.3	34+/-0.16	29.8+/-0.31
		2		37.85 ±0.02	37.95 ±0.02	34.65 ±0.07
		3		32.2 ±0.59	32.1±0.59	33.65 ±0.61
ALT, U / L	9-52	1	38.05 ±0.83	38+/-0.9	38.3+/-0.08	38.6+/-0.9
		2		47.2 ±0.09	48.75 ±0.76	49.4 ±0.07
		3		34.65 ±0.06	34.8±0.07	35.15±0.08
GGT, U / L	1-10	1	6.25 ±0.06	5.1+/-0.02	5.3+/-0.02	5.45+/-0.01
		2		6.14 ±0.12	6.8 ±0.1	6±0.08
		3		6.5 ±0.01	6.55 ±0.01	6.4±0.01
Cholesterol, mmol / l	2.9-6.5	1	5.36 ±0.05	5+/-0.05	4.3+/-0.04	4.5+/-0.06
		2		5.84 ±0.09	5.61 ±0.001	5.45 ±0.06
		3		5.7 ±0.03	5.9 ±0.03	5.9 ±0.03

According to Table №1, where biochemical parameters were studied, in dogs in the control group (group 3) within 30 days of research compared with the first day

of studies we identified an increase in serum creatinine and urea, by 1.3% 2.1%, respectively, the level of alpha-amylase by 7.9%, alkaline phosphatase by 4.6%. By the 30 day the level of total protein increased by 6.1% due to albumin increase by 6.2%, globulin remained at the same level. Also the level of performance of total bilirubin increased slightly (3%), AST (4.3%), GGT (2.3%), cholesterol (9.1%). Reduction of biochemical parameters was revealed only in ALT by 7.6%.

In dogs of experimental group №1, where the drug Berberis Gomakord was used we noticed slight increase in the level of biochemical parameters in the 30-day of study-glucose by 4.5%, creatinine by 6.5%, an alpha-amylase by 4.2%. And on the second day creatinine level increased by 22.9%. Significant lowering of performance was observed in total protein (14%) on lowering of albumin (8%) and 7.4% AST, GGT 12.8% and cholesterol levels by 16%.

In dogs of the second experimental group an increase in such biochemical parameters like total protein was revealed by 9.3% due to the increase of globulin by 22%, significantly increased performance AST (7.1%) and ALT (22.9%). Significant reduction in creatinine and urea 15.4 9.2%, respectively, and alkaline phosphatase (16.7%), alpha-amylases (13.9%).

**Table №2**

**Indicators of micro-and macro-elements of healthy animals**

Blood indices	Norm	Group of animals	Day of the research			
			1	3	6	30
Magnesium, mmol / l	0.8-1.4	1	0.76 ±0.001	0.93 ±0.001	0.96 ±0.001	1.01 ±0.001
		2		0.91 ±0.001	0.92 ±0.001	0.91 ±0.001
		3		0.71 ±0.001	0.71 ±0.001	0.7 ±0.001
Calcium mmol / l	2.3-3.3	1	2.25 ±0.02	2.57 ±0.01	2.58 ±0.002	2.4 ±0.01
		2		2.45 ±0.02	2.35 ±0.02	2.24 ±0.01
		3		2.05 ±0.01	2.05 ±0.01	2.01 ±0.01
Phosphorus, mg / l	1.1-3.0	1	1.8 ±0.01	1.85 ±0.01	1.9 ±0.01	1.75 ± 0.02
		2		1.52 ±0.01	1.57 ±0.002	1.53 ±0.01
		3		1.85 ±0.03	1.85 ±0.03	1.7 ±0.03
Sodium,	140-150	1	145.5	150 ±0.06	150 ±0.06	147 ±0.17

mmol / l		2	±0.19	146 ±0.04	145 ±0.04	144 ±0.04
		3		145 ±0.1	145±0.02	144±0.08

According to Table №2, in the control group, which did not use homeopathic remedies, by the 30th day indicators of Ca and sodium remained at the same level, and magnesium (7.8%) and phosphorus (5.5%) decreased slightly. While in the first group, which used Berberis, on the 30th day compared with the 1st - significantly increased magnesium (24.7%), calcium by 12.7%. In the second study group, which used the Kantaris Compositum, by the 6th day the rate of calcium increased by 12.7%, and by the 30th day fell to its previous level. While, the phosphorus remained at a low level from the 3rd to the 30th day in comparison with the other groups, and was different from the 1st day by 15%.

**Table №3**

**Clinical indicators of intact animals**

Blood indices	Norm	Group of animals	Day of the research			
			1	3	6	30
Erythrocytes, x10 * 1	5.2-8.4	1	6.45 ±0.04	7.55 ±0.04	7.65 ±0.03	7.35 ±0.03
		2		7.4 ±0.04	7.05 ±0.01	7.6 ±0.02
		3		6.65 ±0.02	6.65 ±0.02	6.6 ±0.03
Hemoglobin, g / l	120-180	1	155.5 ±0.27	169.5 ±0.48	171.5 ±0.35	166.5 ±0.52
		2		169.5 ±0.48	169 ±0.75	175 ±0.08
		3		149 ±0.59	148.5 ±0.56	148 ±0.5
Leukocytes, x10 * 9/1	8.5-10.5	1	9.25 ±0.02	9.15 ±0.002	8.6 ±0.004	9.05 ±0.002
		2		8.4±0.07	8.2 ±0.03	7.95 ±0.02
		3		9.5 ±0.02	9.4 ±0.001	9.3 ±0.001
Basophils,%	0-1	1	0 ±0.0	0 ±0.0	0 ±0.0	0 ±0.0
		2		0 ±0.0	0.5 ±0.02	0 ±0.0
		3		0 ±0.0	0 ±0.0	0 ±0.0
Eosinophils,%	2-9	1	2.5 ±0.1	2 ±0.001	2 ±0.02	1.5 ±0.02

		2		2 ±0.001	1.5 ±0.02	1.5 ±0.02
		3		2.5±0.04	2.5 ±0.02	2.5 ±0.1
Young,%	0	1	0 ±0.0	0 ±0.0	0 ±0.0	0 ±0.0
		2		0 ±0.0	0 ±0.0	0 ±0.0
		3		0 ±0.0	0 ±0.0	0 ±0.0
stab neutrophils,%	1-6	1	2.5 ±0.02	3.5 ±0.06	4 ±0.04	2.5 ±0.02
		2		3 ±0.001	2 ±0.001	3 ±0.001
		3		2 ±0.04	2 ±0.04	2±0.04
Segmented,%	40-71	1	57.5 ±0.1	60.5 ±0.02	60.5 ±0.06	62.5 ±0.06
		2		55 ±0.25	54.5 ±0.06	54.5 ±0.02
		3		57 ±0.04	57 ±0.08	57 ±0.04
Monocytes,%	1-5	1	3.5 ±0.06	4.5 ±0.02	3.5 ±0.02	3.5 ±0.02
		2		4 ±0.001	3.5 ±0.02	3.5 ±0.02
		3		3.5 ±0.02	3 ±0.04	3 ±0.001
Lymphocytes,%	21-40	1	35.5 ±0.06	29.5 ±0.06	30 ±0.1	30 ±0.04
		2		36 ±0.25	38 ±0.13	37.5 ±0.02
		3		35 ±0.02	35.5 ±0.02	35.5±0.01

According to the table №3, clinical scores of the control group (№3) did not change significantly during the study period. Whereas, in the first group (Berberis Gomakord was used) by the 30th day erythrocytes increased by 12.2%, hemoglobin 6.6% segmented neutrophils, 8%, and lymphocytes decreased by 15.4%.

In the second group (Kantaris Compositum was used) - erythrocytes increased by 15.1% (which is 2.9% more than in the first group), hemoglobin by 11.1% (up 4.5%). Eosinophils fell on the 30th day in the 1st and 2nd groups by 40%. As seen in the second group leukocytes decreased by 14%.

### Conclusions.

As a result of the research, we can draw the following conclusions:

1. There were no significant changes in clinical and biochemical parameters of blood while using homeopathic remedies, Berberis Gomakord Kantaris

Compositum. All figures were within the normal range throughout the study period.

2. At the time of data analysis, it was determined that Berberis Gomakord and Kantaris Compositum have different effects on blood parameters of clinically healthy dogs, while blood counts in the control group remained unchanged. Thus, Berberis Gomakord appreciably affect the mineral exchange in the organism, in particular of calcium, phosphorus, magnesium; also a decrease in the level of total protein against a background of albumin reduction was revealed. In applying Kantaris Compositum significant changes in terms of micro-and macro were not revealed. At that time, as in the biochemical indices significantly decreased creatinine, urea, alkaline phosphatase, the rate of total protein on the background of globulin increased; and in the clinical picture of the blood - white blood cells noticeably decreased. Also it was found that the application of these drugs increased erythropoiesis.

## References.

1. Belov A., Danilov E., Dukur I. and other. Diseases of dogs. - М.: Ahroproizdat. – 1990. – 368 с.(in Ukrainian).
2. Gamilton D. Homeopathic treatment of cats and dogs. - М.: Homeopathic Medicine. – 2005. – 680 с.(in Ukrainian).
3. Dr Francis Lizon. L'homeopathie pour le chien, le chat et le cheval. – St. Jean de Braye (France): Editions Dangles. – 1983. – 170 p.
4. Fabrice Hebert, Christophe Bulliot. Guide Pratique de Medecine interne chien, chat et NAC. – Paris: Med`com, 2010 – 752 с.

### ***Вплив гомеопатичних препаратів на інтактних тварин. Коритняк А.М.***

*При використанні гомеопатії виникає одна основна трудність – уявлення про дію цього ряду лікарських препаратів мало зрозумілі і важко уявити їх участь у біохімічних та хімічних реакціях організму. Саме відсутність чітких принципів про фармакокінетику гомеопатичних засобів є причиною того, що гомеопатична фармакокінетика має невизначене становище в науковій медицині.*

**Ключові слова:** собаки, гомеопатичні препарати

### ***Влияние гомеопатических препаратов на интактных животных. Коритняк А.Н.***

*При использовании гомеопатии возникает одна основная трудность – представление о действии этого ряда лекарственных препаратов мало понятны и трудно представить их участие в биохимических и химических реакциях организма. Именно отсутствие чётких принципов о фармакокинетики гомеопатических препаратов является причиной того, что гомеопатическая фармакокинетика имеет неопределённое положение в научной медицине.*

**Ключевые слова:** собаки, гомеопатические препараты