

WAY AND EFFECT OF FOOD-UREA IN ORGANISM OF RABBIT

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Examinations of utilization of $\text{NH}_3\text{-N}$ (deriving from food-urea) in organs of rabbits were led to different results. This examination aimed at the determination that - comparing to the $\text{NH}_3\text{-N}$ concentrations and blood-plasma urea concentrations of the same blood samples (from v. jugularis and v. portae) of rabbits on diet without urea (control group) how the values develop at rabbits given 3,3 g/head urea dissolved in 20 ml distilled water (through surgeon's probe) and at rabbits given 3,3 g/head of urea into their food. Besides fixing of blood parameters the main aim of test was to determine whether the urea reaches its hypothetical utilizing place, the caecum, and if it gets as far, in which quantity does it.

Experiment was performed with 3x4 rabbits (Hungarian-giant breed) of 3 kg body-weight, from two litters, spread evenly for the groups. The rabbits were given 0,1 kg rabbit-food and 0,1 kg hay of low quality per head per day to meet their daily 18 g digestible protein requirement.

Ammonia concentrations were examined by the method of Juhász and Szegedi (1968), the urea concentrations were measured by the Ferenc and Koller's (1968) method.

Results

Results are given in Table 1.

In accordance with the statistical evaluation of results ammonia concentrations of both vein-areas increased at testing-groups comparing to the control group. This increase

wasn't significant. In shaping of urea concentrations there were pregnant differences at both groups having urea. The urea content of blood plasma increases both in v.jugularis and v.portae when food-urea was given to the rabbits. The urea concentratio of v.portae-blood was nearly twice higher than that of v.jugularis-blood which refers to direct absorption, too.

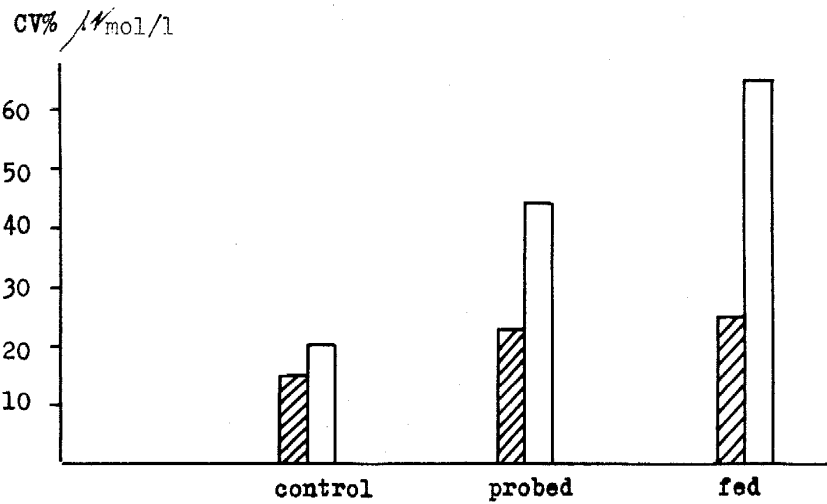
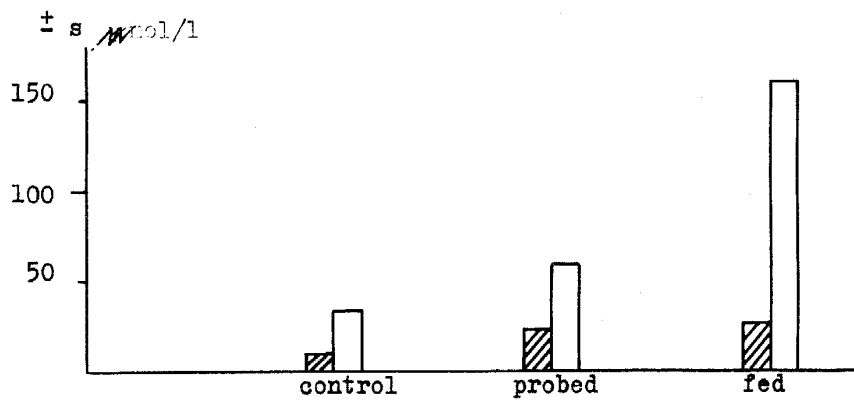
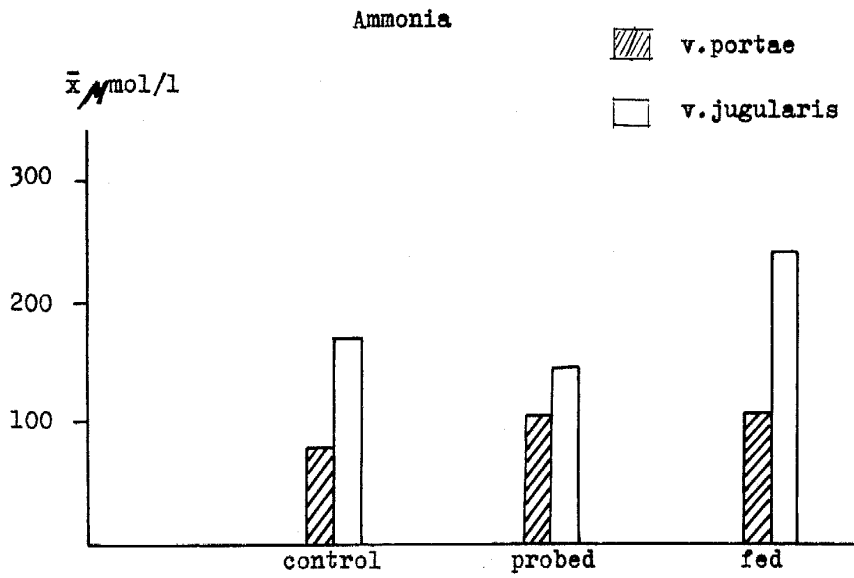
Contents of certain intestine sections were analyzed after binding of sections, correct measuring and thinning.

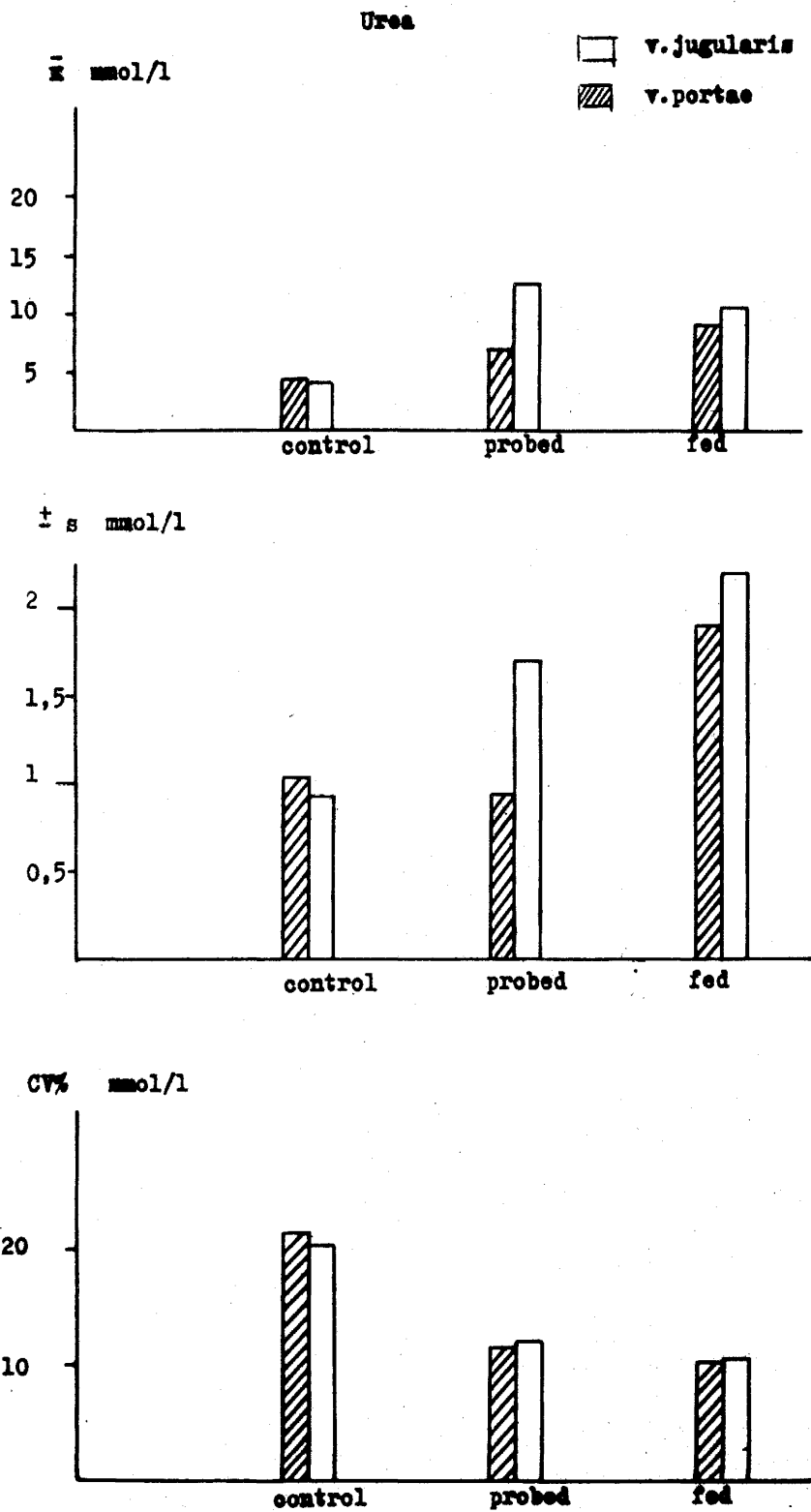
The urea concentrations of caecum-contents for 1 g wet matter were: Fed: $\bar{x}=32$; Probed: $\bar{x}=57$; Control: $\bar{x}=31$ /mmol/l.

AMMONIA- AND UREA CONCENTRATION CHANGINGS OF THE BLOOD OF RABBITS
IN V.JUGULARIS AND V.PORTAE

Table 1.

Groups	Ammonia (μ mol/l)						Urea (mmol/l)					
	v.jugularis			v.portae			v.jugularis			v.portae		
	\bar{x}	\pm s	CV%	\bar{x}	\pm s	CV%	\bar{x}	\pm s	CV%	\bar{x}	\pm s	CV%
Control	83,64	13,23	15,82	173,16	35,38	20,43	4,71	1,06	22,50	4,627	0,93	20,08
Probed	117,22	22,66	23,59	149,09	67,01	44,90	7,47	0,958	12,85	13,400	1,79	13,36
Fed	108,58	28,19	25,91	247,03	160,85	65,11	9,48	1,917	20,25	10,910	2,21	20,26





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Experiment was performed with 3x4 rabbits /Hungarian giant/
of 3 kg body-weight. The control group was on diet without
urea, rabbits of the second group got urea through surgeon's
probe, the third group got crystallized urea in the food,
3,3 g/head.

Groups	v. jugularis				v. portae			
	NH ₃ -N / μ mol/l		Urea mmol/l		NH ₃ -N / μ mol/l		Urea mmol/l	
	\pm s	\pm s	\pm s	\pm s	\pm s	\pm s	\pm s	\pm s
Fed	109	28.19	9.5	1.917	247	160.85	11.0	2.21
Probed	117	27.66	7.5	0.958	150	67.01	13.4	1.79
Control	84	13.23	5.0	1.06	173	35.38	5.0	0.93

Urea concentrations of caecum-contents for 1 g wet matter
were: Fed: \bar{x} =32; Probed: \bar{x} =57; Control: \bar{x} =31 /mmol/l/.

WEG UND WIRKUNG VOM FUTTERKARBAMID BEIM KANINCHEN

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Autor machte Versuche mit 3x4 Kaninchen der Rasse Ungarischer
Riese, Körpermasse 3 kg. Die Kontrollgruppe erhielt karbamid-
freie Diät, die andere Gruppe mittels Sonde und die dritte in
der Futterration 3,3 g Karbamid in Kristallform. Versuchser-
gebnisse:

	v. jugularis				v. portae			
	NH ₃ -N / μ mol/l		Karbamid mmol/l		NH ₃ -N / μ mol/l		Karbamid mmol/l	
	\pm s	\pm s	\pm s	\pm s	\pm s	\pm s	\pm s	\pm s
In Futter	109	28.19	9.5	1.917	247	160.85	11.0	2.21
Mit Sonde	117	27.66	7.5	0.958	150	67.01	13.4	1.79
Kontrollgr.	84	13.23	5.0	1.06	173	35.38	5.0	0.93

Die Karbamidkonzentrationen im Blinddarm gerechnet pro 1 g
Feuchtesubstanz: In Futter: \bar{x} =32; Mit Sonde: \bar{x} =57;
Kontrollgr: \bar{x} =31 /mmol/l/.

