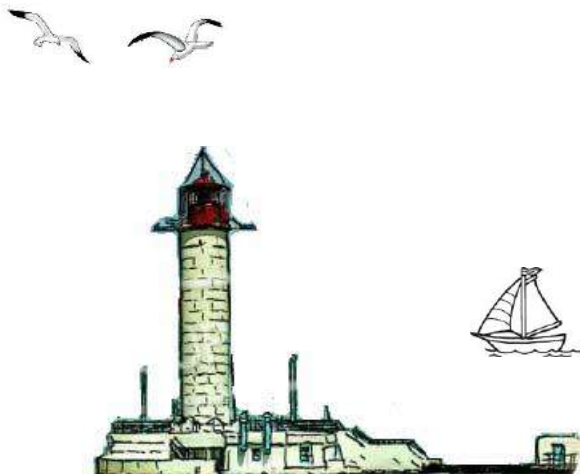


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DETECTION OF EARLY RENAL DYSFUNCTION IN OBESE PATIENTS

ВИЯВЛЕННЯ РАННЬОЇ ДИСФУНКЦІЇ НИРОК У ХВОРИХ З ОЖИРІННЯМ

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In modern nephrology, more and more attention is paid to the study of the decline in renal function as a result of exposure to non-immune factors. The mechanisms of the development of the pathological process in the kidneys under the influence of excess body weight are poorly understood

There are several hypotheses that explain the mechanism of kidney damage in obesity. Among them are: auto- and paracrine effects of hormones and cytokines of adipose tissue; the role of relative oligonephronia with the formation of intraglomerular hypertension; violation of systemic hemodynamics, the effect of insulin resistance and dyslipidemia. One of the early manifestations of impaired renal function is microalbuminuria and hyperfiltration. The detection of the latter in a clinical setting is possible with appropriate stress tests. When conducting various tests to identify the renal functional reserve, it is necessary to be guided not only by their diagnostic value, but also by the simplicity of execution and the absence of any negative reactions in the patient, to adhere to the principle of compliance.

Purpose of the work: to identify early functional impairment of renal function in patients with grade I obesity.

Material and methods: 17 patients with grade I obesity (BMI = 30-34.9 m²) with a disease duration of 5 to 9 years were examined. Visceral obesity was also assessed by waist circumference: more 102 cm in men, 88 in women. The functional state of the kidneys was studied under conditions of 12-hour spontaneous diuresis and during water loading in a volume of 0.5% of body weight. The control group consisted of 20 healthy persons of the corresponding age.

In the study of renal function under conditions of 12-hour diuresis, a slight significant increase in the concentration of creatinine in the blood plasma and a decrease in glomerular filtration (GF) by 24% in

comparison with the group of healthy individuals (norm 132.7 ± 13.44 ml/h) with preserved daily diuresis. In healthy people, 2 hours after performing a functional load using water in a volume of 0.5% of the body weight, diuresis, when recalculated per hour, increased 2 times compared to 12 hours and averaged more than 80% of the water load. In patients with grade I obesity, in response to water load, the total diuresis was 1.7 times reduced ($p < 0.05$) and amounted to only 1/3 of the load volume, the plasma creatinine concentration increased by 38%, and the GF level in terms of creatinine clearance decreased by almost 3 times.

Thus, when carrying out a functional load, clear changes in the excretory function of the kidneys are revealed, which under normal conditions are not found in most patients with obesity of the 1st degree. Evaluation of the reserves of the filtration capacity of the kidneys can make it possible to predict the rate of progression of chronic kidney disease in obese patients even with an initial normal GF level and to select patients in time for dispensary observation and the appointment of pathogenetic therapy.

Key words: functional load, kidneys, obesity.

Ключові слова: функціональне навантаження, нирки, ожиріння

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**ASSESSMENT OF THE FUNCTIONAL STATE OF THE
VESSELS ENDOTHELIUM IN RATS WITH A NITRITE-
INDUCED MODEL OF ALZHEIMER-TYPE DEMENTIA**

**ОЦІНКА ФУНКЦІОНАЛЬНОГО СТАНУ ЕНДОТЕЛІУ
СУДИН У ЩУРІВ З НІТРИТ-ІНДУКОВАНОЮ МОДЕЛЛЮ
ДЕМЕНЦІЇ АЛЬЦГЕЙМЕРІВСЬКОГО ТИПУ**

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Many authors are convinced that Alzheimer's disease is accompanied not only by neurodegenerative processes but also by vascular dysfunction. At the same time, vascular pathology can occur even before the formation of amyloid plaques and the appearance of

ЗМІСТ

	Стор.
<i>Kovaltsova M., Myroshnychenko M., Patynko E.</i> ENDOCRINE PART OF THE PANCREATIC DYSFUNCTION DURING OVEREATING IN RATS.....	7
<i>Kvasnytska O. B., Antoshuk V. V., Shatkivska D. E.</i> VASCULAR MECHANISMS OF RENAL DYSFUNCTION IN OBESE PATIENTS	8
<i>Kvasnytska O. B., Bezborodova T. T.</i> DETECTION OF EARLY RENAL DYSFUNCTION IN OBESE PATIENTS	10
<i>Pavlova O. O., Lukyanova Y. M.</i> ASSESSMENT OF THE FUNCTIONAL STATE OF THE VESSELS ENDOTHELIUM IN RATS WITH A NITRITE- INDUCED MODEL OF ALZHEIMER-TYPE DEMENTIA	11
<i>Pavlova O. O., Sirenko V. A., Shevchenko V. O.</i> MORPHOMETRIC PARAMETERS OF THE STRUCTURAL ELEMENTS OF THE EXO- AND ENDOCRINE PART OF THE PANCREAS OF NEWBORN RATS AFTER CHRONIC PRENATAL STRESS	13
<i>Portnychenko A., Aliiev R., Abuwatfa S., Kozlovska M., Shapovalova A., Topchanyuk L., Gonchar O., Vasylenko M., Nosar V., Rozova K., Zhukovska A.</i> MECHANISMS OF THE COMORBID COURSE OF THE INFLAMMATORY PROCESS AND TYPE 2 DIABETES AND POSSIBILITIES OF HYPOXIC CORRECTION	15
<i>Авраменко А. О., Короленко Р. М., Смоляков С. М., Дерменжи Е. В., Макарова Г. В.</i> ЧАСТОТА ВИЯВЛЕННЯ РЕАКТИВНОГО ПАНКРЕАТИ- ТУ У БІЙЦІВ ЗБРОЙНИХ СИЛ УКРАЇНИ ПІД ЧАС ПРОВЕДЕННЯ ВІЙСЬКОВИХ ДІЙ	16
<i>Андрейцова Н. І.</i> ВОДОЗАБЕЗПЕЧЕННЯ НАСЕЛЕННЯ В УМОВАХ ВОЄННОГО СТАНУ	18