

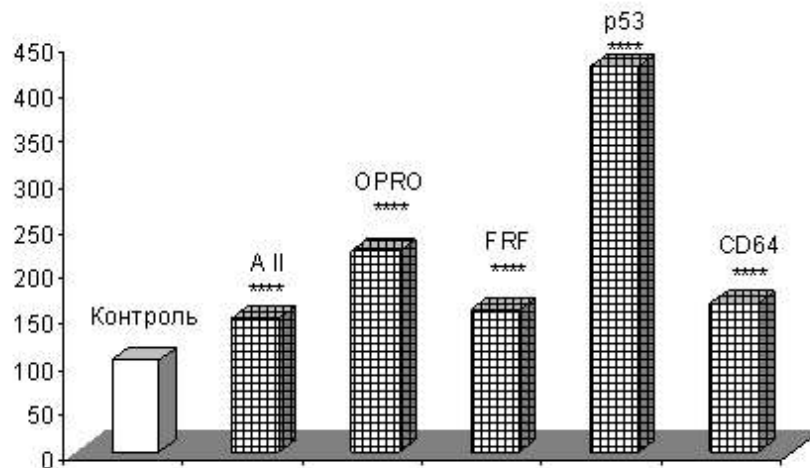
Multivariate regression analysis of the study of tubulointerstitial syndrome in chronic Masugi nephritis using vegetative resonance test "IMEDIS-TEST

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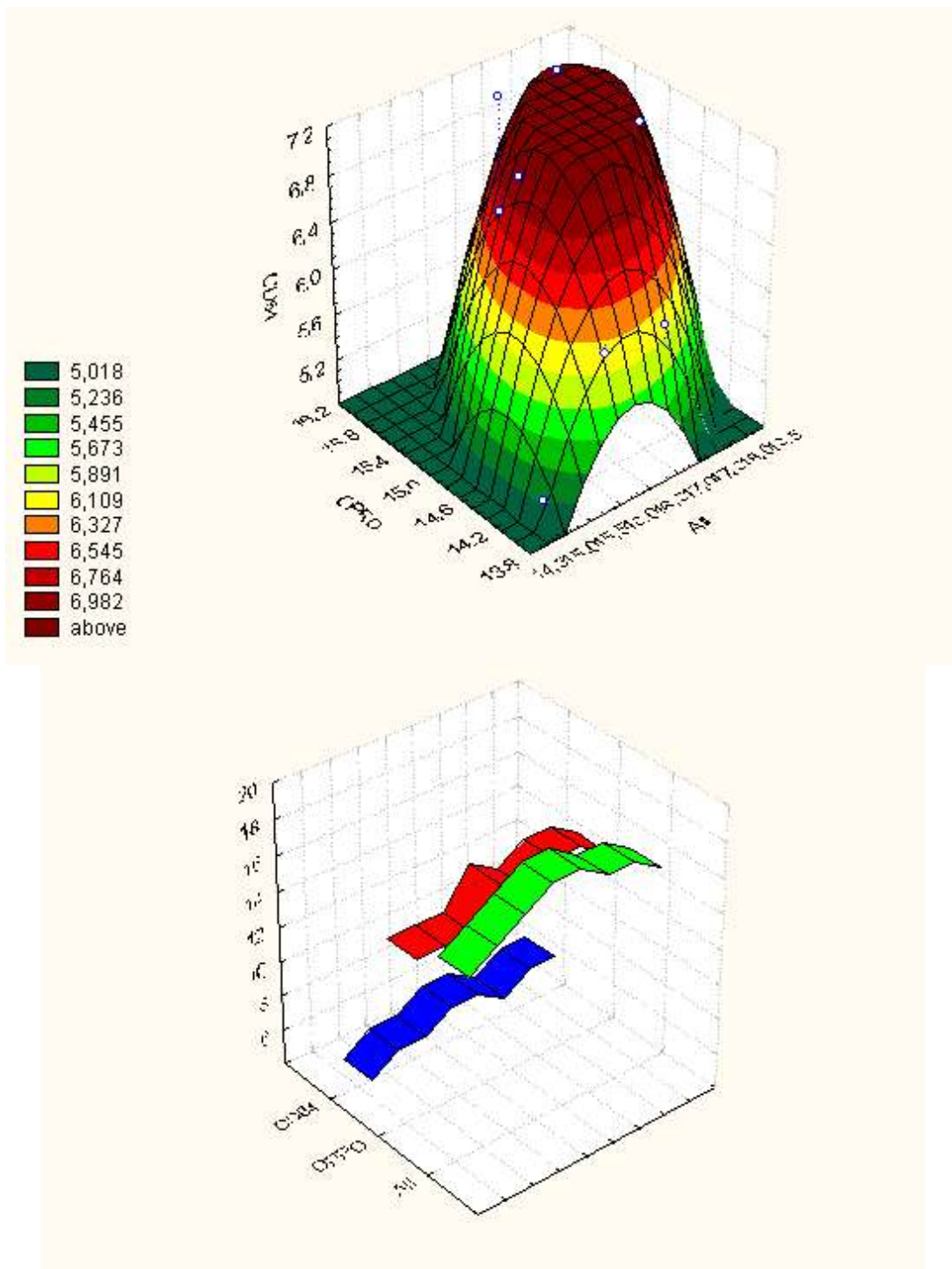
Target research - to figure out possibilities multifactorial regression analysis between CD 64, pro-apoptotic protein p53, fibroblast growth factor, oxyproline, angiotensin 2 under conditions of tubulo-interstitial syndrome formation in chronic Masugi nephritis to confirm the objectivity of the vegetative resonance test "IMEDIS-TEST +".

Experiments were carried out on 42 white nonlinear male rats weighing 0.16-0.18 kg. Modeling of Masugi nephritis was carried out by 2-fold intraperitoneal injection of rabbit nephrotoxic serum with a titer of antirenal antibodies in the complement binding reaction of at least 1: 1024. The studies were carried out on the 45th day, which corresponded to the development of chronic Masugi nephritis with formed tubulo-interstitial syndrome [3, 4]. The animals were euthanized by decapitation under ether anesthesia. When evaluating the samples of fragments of the cortical substance of the kidneys of rats using the vegetative resonance test "IMEDIS TEST +", samples weighing 50-100 mg in test tubes made of thin organic glass were examined in a container of the device "IMEDIS-BRT-PC" using software (Registration certificate for medical equipment product No.FS 022a3066 / 0414-04, issued by the Federal Service for Surveillance in Healthcare and Social Development of the Russian Federation dated July 8, 2004) with the definition on the bioindex scale: CD 64, p53 protein, fibroblast growth factor, angiotensin 2, oxyproline. [12]. Bioindex scale indicators from 1 to 21 are taken as conventional units. The material was processed by the method of parametric statistics using the software package "Statistica" and "Excel-7.0".

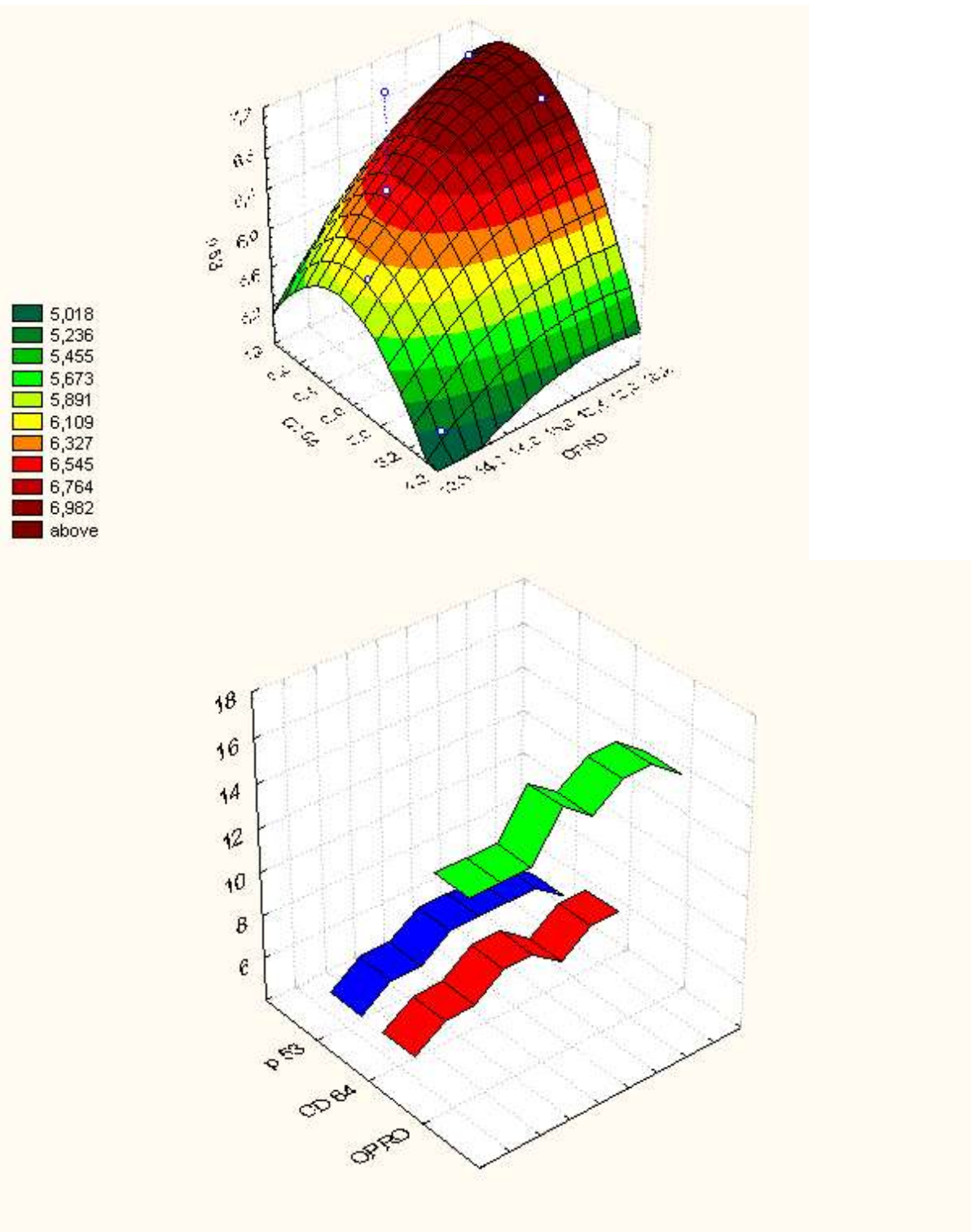
The research results showed an increase in the renal cortex on the 45th day of chronic Masugi nephritis: CD 64, p53 protein, fibroblast growth factor, angiotensin 2, hydroxyproline (Fig. 1).



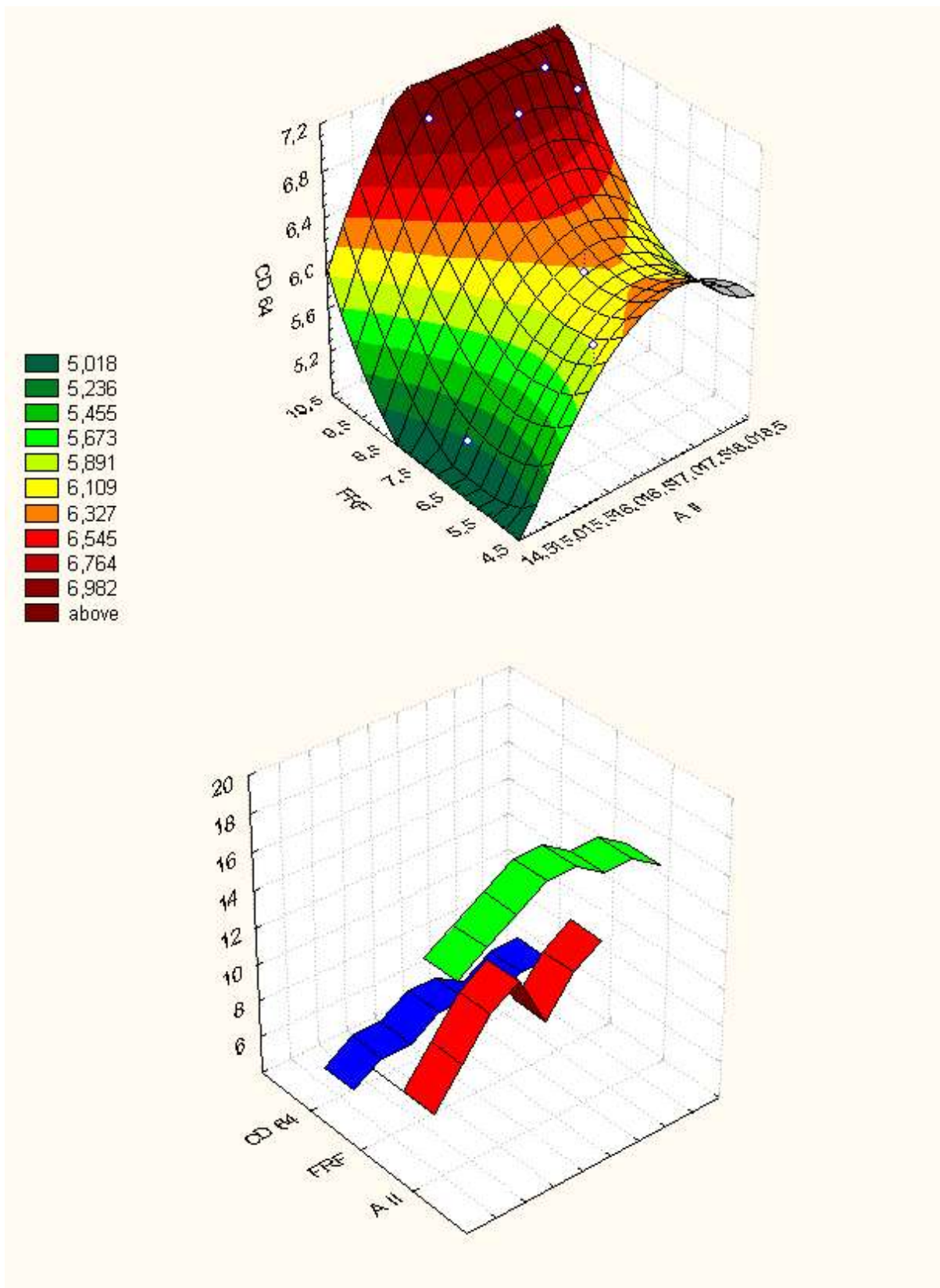
Rice. one. The content of CD64, p53 protein, fibroblast growth factor (FRF), angiotensin 2 (AII), hydroxyproline (OPRO) in the renal cortex on day 45 of chronic Masugi nephritis (%). Light column control, shaded columns - chronic Masugi nephritis. Significance of differences in comparison with the control taken as 100% was noted: \*\*\*\* -  $p < 0.001$



Rice. 2. Multivariate regression analysis of significant relationships ( $p < 0.05$ ) between CD64, angiotensin 2 (AII) and hydroxyproline (OPRO) in the cortex of rat kidney on day 45 of chronic Masugi nephritis for different values of the F coefficient indicated in the upper part of the figure on the left



Rice. 3. Multivariate regression analysis of significant relationships ( $p < 0.05$ ) between CD64, p53 protein and oxyproline (OPRO) in the cortex of rat kidney on day 45 of chronic Masugi nephritis for different values of the F coefficient indicated in the upper part of the figure on the left



Rice. 4. Multivariate regression analysis of significant relationships ( $p < 0.05$ ) between CD64, angiotensin 2 (AII) and fibroblast growth factor (FRF) in the cortex of rat kidney on day 45 of chronic Masugi nephritis for different values of the F coefficient indicated in the upper part of the figure on the left

Revealed by multivariate regression analysis reliable ( $p < 0.05$ ) correlations between the content of angiotensin 2, hydroxyproline, CD 64 (Fig. 2); reliable ( $p < 0.05$ ) correlations between the content of hydroxyproline, CD 64, protein p 53 (Fig. 3); reliable ( $p <$

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0.05) correlations between CD 64, fibroblast growth factor and angiotensin 2 (Fig. 4) in the renal cortex on the 45th day of chronic Masugi nephritis for different values of the F coefficient are due to the fact that an increase in connective tissue in the renal cortex in chronic nephritis Masugi is realized with the help of fibroblast growth factor.

An increase in the amount of connective tissue under the influence of angiotensin 2 leads to atrophy of the nephron tubules due to the activation of apoptosis with an increase in the pro-apoptotic protein p53. The implementation of macrophage-fibroblastic interaction with increased collagen growth is evidenced by the relationship fibroblast growth factor and oxyproline with a specific macrophage marker CD 64.

#### Conclusion

The objectivity of the autonomic

resonant test "IMEDIS-TEST +" in opportunities analysis  
experimental kidney pathology.

#### Literature

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