



3 patients with fractures of the metatarsal bones, 7 patients with Hallux Valgus. The external immobilization after osteosynthesis with metal and polymeric screws was kept for 5-6 weeks after surgery with orthoses or plaster cast bandages. Patients, who were operated with LCP plates, were treated without plaster bandage. Biodegradable ActivaScrews were used for internal fixation of tibial condyle fractures, malleolus, metatarsal shaft and base fractures, bone fixation after osteotomy for Hallux Valgus. Osteosynthesis with biodegradable pins was performed in patients with fractures of the lateral malleolus, metatarsal bones, and fixation of osteotomies for Hallux Valgus.

The results of treatment were followed within 3 – 28 months. In 15 patients, where polymeric fixing devices were used, the good results were achieved. The results in case of the patient with complicated ankle fracture-dislocation and developed osteoarthritis were considered to be satisfactory. No foreign body reactions or other adverse effects were found. In 97,8 % cases after internal fixation with metal devices the results were good and satisfactory. The secondary displacement, as a result of short immobilization period, developed in one patient, who was operated with screws and wires. Among other complications was superficial site infection in two cases, that later were successfully treated.

Biodegradable polymer fixators allowed achieving proper fixation of avulsion, marginal and intra-articular fractures. The terms of fracture healing were similar to those patients who had undergone osteosynthesis with metal devices. During the whole period of follow-up we have not seen any local allergic or inflammatory reactions in the areas where biodegradable fixators were used.

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**NEPHROPROTECTION THERAPY OF PATIENTS SUFFERING FROM BENING PROSTATE GLAND
HYPERPLASIA**

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Morbidity of bening prostate gland hyperplasia (BPH) occupies the third place after urolithiasis and heterospecific inflamantary diseases in the structure of diseases of urology profile. BPH is the most widespread disease among men of elderly and senile years, which determines quality of their life. However the characteristic complex of symptoms, clinical signs and macrostructural changes in the prostate gland develop rarely enough and depend on the stage of the disease (only 40-50 % men at the age of 50-64 have symptoms of the disease).

The functional state of kidneys has an important value to choose the tactics and method of treatment, and influences on the treatment of the disease considerably. For patients suffering from BPH in I-II stage of the disease the onset of cronic kidney failure is diagnosed in most cases, but pronounced clinical symptoms are not, as the passage of urine depends on retractive possibility of the urinary bladder detrusor.

To provide highly effective nephroprotection therapy the basic links of physiopathological mechanisms should be considered, which are found in kidneys in case of obstructive uropathies. It results in underlying universality of pathogenetic mechanisms of kidney parenchyma damage without substantial dependence on aetiologic factors. In the last few years single scientific reports have appeared concerning nephroprotection action of angiotensin transforming enzyme inhibitors, calcium channel blockers, L - arginine.

Nephroprotection action of these groups of preparations consists of elimination of disorders of lipid peroxidation, microvascular circulation of blood and improves antioxidant properties of the organism.

A great number of medicinal preparations of different action targeted at treatment of BPH is indicative of the fact that none of these medications is effective enough with monotherapy, that is why there is a necessity to introduce a complex therapy of kidney parafunctions.

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NEW DIAGNOSTIC METHOD OF PERITONEAL CAVITY ACUTE SURGICAL DISEASES

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The treatment tactic of patients with acute surgical pathology of the abdominal organs essentially depends on its nature, but, at the same time, in some cases, the differential diagnosis of certain diseases is quite complicated. It is determined by the lack of specific laboratory criteria and informative instrumental research methods, which requires the search for new means. The attention is drawn to diagnostic methods based on the determination of the blood plasma optical characteristics which allow to detect inflammatory and destructive processes in the peritoneal cavity. However, the information about the application of such methods for the purpose of various diseases differentiation is absent.

The aim of the study was to investigate the possibility of acute surgical abdominal diseases differentiation by the blood plasma optical properties determination.

34 patients with destructive forms of acute diseases, including 15 cases of cholecystitis, 11 - appendicitis, 5 – irreducible hernia and 3 cases of perforated gastroduodenal ulcers. were examined. All patients have had surgery. After the hospitalization, patients had 2 ml of venous blood taken by the puncture of cubital vein. The determination of the blood plasma luminescence spectra was carried out, for which it was irradiated with a monochromatic laser beam by an argon laser LGN-503. Blood plasma of healthy donors was used for control measurements. During check measurements in the blood plasma luminescence spectra a characteristic intensity maximum was found at the wavelength of $\lambda = 474$ nm.



The displacement of the maximum fluorescence power indexes to the short-wavelength range, starting with the wavelength $\lambda = 473$ nm were detected in the examined patients, and the absolute parameters of indexes remained significantly lower. The significant difference in the spectral distribution of the fluorescence intensity peak values, that were found in various diseases, have their attention drawn. In particular, in acute appendicitis case, the maximum parameters were observed at the wavelength of $\lambda = 472$ nm, with perforated ulcers - at the wavelength of $\lambda = 468$ nm, with acute cholecystitis - $\lambda = 470$ nm.

Thus, the above mentioned shows that the intensity of fluorescence of venous blood plasma of in patients with acute surgical diseases of the abdominal cavity changes with the characteristic regularity depending on the type of pathology. Determination of this indicator parameters can be applied for the purpose of differential diagnosis.

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EDEMATOUS PANCREATITIS DEVELOPMENT RISK DEPENDING ON COMBINATIONS OF ALLELIC VARIANTS OF GENES CFTR (rs 113993960), PRSSI (rs 111033565) AND IL-4 (rs 2243250)

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The aim of the research was to study the combined influence of genes CFTR (rs 113993960), PRSSI (rs 111033565) and IL-4 (rs 2243250) polymorphisms from the point of view of edematous pancreatitis development risk.

Genetic studies have been performed for 123 patients with acute and chronic pancreatitis exacerbation, among whom were 23 (18,7%) women and 100 (81,3%) men. The control group included 40 practically healthy individuals who were not relatives of the patients, of corresponding sex and age. Molecular genetic studies, which included the determining of polymorphic variants of genes CFTR (rs 113993960), PRSSI (rs 111033565) and IL-4 (rs 2243250), have been performed at the laboratory of the State institution «Reference centre of molecular diagnostics of the Ministry of Health of Ukraine» (Kyiv). The polymorphic variants of analysed genes CFTR (rs 113993960), PRSSI (rs 111033565) and IL-4 (rs 2243250) have been studied with polymerase chain reaction (PCR) method. The genotypes distribution among the examined patients and healthy people for the selected genes has been determined.

The distribution of polymorphic variants of CFTR (rs 113993960), PRSSI (rs 111033565) and IL-4 (rs 2243250) genotype combinations showed no statistically significant difference between the group of patients and the control one. 52,47% of patients were the owners of NN / GG / CC genotype combination. 38,61% of patients with pancreatitis had the unfavorable T-allele of gene IL-4 in their genotype combination (NN / GG / CT-, or NN / GG / TT). The remaining combinations of genes CFTR / PRSSI / IL-4 genotypes were met in rare cases (1-3 people). The incidence of minor TT-genotype of gene IL-4 was 7,50% in control group and 8,91% – in patients. Gene CFTR (delF508) mutation in the heterozygous state occurred in 4,69% of patients and 2,50% of the healthy. The analysis of polymorphic variants of genes CFTR (rs 113993960), PRSSI (rs 111033565), IL-4 (rs 2243250) genotype combination, depending on the type and etiology of edematous pancreatitis, showed no statistically significant difference in the frequency of genotype combination between the patients with acute or chronic pancreatitis exacerbation, and of alcoholic or biliary origin. Most of the patients were the carriers of a combination of favorable genotypes (NN / GG / CC): with acute pancreatitis – 57,81%, with chronic pancreatitis exacerbation – 43,24%, with alcoholic pancreatitis – 56,25%, with biliary pancreatitis – 45,95%. 29,69% of patients with acute pancreatitis, and 37,5% with alcoholic pancreatitis had an unfavorable T-allele of gene IL-4 in the genotype combination (NN / GG / CT-, or NN / GG / TT), also this allele was detected in 54,05 % of patients with chronic pancreatitis exacerbation, and in 40,54% with biliary pancreatitis. Among the patients with pancreatitis who had unfavorable T-allele of gene IL-4 in their genotype combination (NN / GG / CT-, or NN / GG / TT), 29,69% were with acute pancreatitis, 37,5% – with alcoholic one; 54,05% – with chronic pancreatitis exacerbation, 40,54% – with biliary pancreatitis.

The epidemiological analysis showed that the analyzed genes PRSSI (365G> A), IL-4 (C-590T) and CFTR (delF508) genotype combinations are not risk factors of acute edematous or chronic pancreatitis exacerbation, neither of alcoholic nor of biliary origin.

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MORPHOMETRIC CHANGES OF SCLERAL LAMINA CRIBROSA IN PATIENTS WITH DIABETIC OPTIC NEUROPATHY

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Lamina cribrosa morphology is ever changing in health and disease, and its changes might cause primary optic nerve damage and secondary damage due to decreasing of blood supplying and axoplasmic transport. Anatomical narrowing of the lamina cribrosa scleral canal may be a precondition of optic nerve and retina damage in diabetes mellitus (DM). There is no information in published literature about the morphometric changes of lamina cribrosa and its scleral canal in patients with diabetic optic neuropathy (DON) in vivo.

The objective was to study the morphometric changes of the lamina cribrosa and changes of its scleral canal in patients with DM depending on the type and stage of the diabetic optic neuropathy.