### 98-а підсумкова наукова конференція професорсько-викладацького персоналу БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ



group. Thus, 82,0% of the disabled people due to eye injuries are individuals of 21-50 years of age, the second group of the frequency curve of eye injuries corresponds to the age of 75 and older. Existing methods of surgical and medical treatment of corneal-scleral injuries are not effective enough. In 12-20% of cases injuries lead to subatrophy of the eyeball. The frequency of infectious complications after penetrating eye injuries ranges between 5 to 50% according to different authors.

Modern technology of diagnostics and treatment of penetrating anterior eye segment injuries uses CT, MRT, OCT and others which can improve qualified medical aid and results of treatment for these patients.

## Kozlovska I.M. OPTIMIZATION OF SURGICAL TREATMENT OF CHRONIC ANAL FISSURES

Department of Surgery № 2 Higher State Educational Establishment of Ukraine "Bukovinian State Medical University"

The majority of clinicians suggest that the only radical method of treatment of chronic anal fissures (CAF) is surgery. Availability of early and late post-operative complications is indicative of insufficient radicalism of known surgical methods of treatment. Thus, rectal fistulae are diagnosed in 1-2% of patients, anal strictures – in 7-8%, anal incontinence – in 12-15%, relapses of the disease – in 10% of patients. Total occurrence of post-operative complications achieves 35%.

The objective of the study is to improve direct and remote results of surgical treatment of patients with CAF by means of substantiation, elaboration and introduction of a new method of radical surgical treatment.

The results of treatment of 112 patients with CAF were analyzed during 2013-2016. The patients were divided into two groups: I group -57 individuals (50.89%) – operated on by means of a designed surgical method (the Useful Model Patent of Ukraine  $N_2$  91491). The second (II) group included 55 individuals (49.11%) – the patients operated on by means of common surgical methods.

Since the third post-operative day and during the whole early post-operative period a considerable reduction of pain was marked in the main group (p<0,001). Before the beginning of treatment there was no statistically considerable difference found concerning the quality of life of patients in both groups (p>0,05). After surgical treatment all the patients admitted a reliable improvement of all the parameters of their quality of life. At the same time, a considerable advantage of all the parameters in the main group was found that was in 1,1-1,3 times higher (p<0,05-0,001) than in the patients undergone a common treatment.

According to all the criteria the efficacy of therapy in the patients of the main group is higher. Particularly, CAF relapse in the group of comparison occurred 2,68 times more frequently as compared to the main group, and anal sphincter failure was detected only among the patients from the group of comparison. Cicatrical strictures were not found in the main group, and the term of a complete healing of the operative wound was 27,58% less as much.

Introduction of a suggested surgical method to treat CAF enables to make the period of patients' inability to work shorter, to improve direct and remote results of the treatment, to reduce the number of post-operative complications, to restore the tonus of the anal sphincter quickly. Application of our designed method to treat chronic anal fissures increases considerably the efficacy of treatment and improves the quality of patients' life, which to our mind, can be a method of choice to treat the given pathology and ensures a high rate of social and working rehabilitation of patients.

## Kulachek Y.V., Kulachek F.G. INFLUENCE NON SPECIFIC PARTS OF THE IMMUNE PROTECTION COURSE FOR LIVER INJURY

Department of General Surgery Higher state educational establishment of Ukraine «Bukovinian State Medical University»

System immunological surveillance allocated one of the leading places in the process flow pathological conditions. One of the manifestations of complications in patients with abdominal trauma is low phagocytosis, reduced antibody synthesis, increased production of T-suppressors, cytokines deregulation in the system. Moderate levels of proinflammatory cytokines increase in plasma observed in uncomplicated post-traumatic liver injury period, although in the case of systemic inflammatory response syndrome of endogenous intoxication and increase this level in 10 or more times. Post-traumatic period in patients with liver injury affects various parts of immune regulation. Compensatory reactions can lead to different directions of change – from episodic to persistent syndromes critical states. Non-specific resistance plays a leading role as a course of abdominal injuries in general and in the development of postoperative complications directly.

For the selection of initial indicators benchmark index was used the control group of patients: phagocytic index  $65.14 \pm 3.48\%$ , the number of phagocytic  $3.26 \pm 0.12$ , completeness phagocytosis index  $1.17 \pm 0.06$ , CIC  $74.98 \pm 2.59$  units.

Therefore for study of immunoregulatory mechanisms abdominal trauma progress trigger the special role should be given to components of endogenous intoxication that not only runs but supports a high activity of the immune system, exhausting it in time the onerous factors of traumatic injuries and comorbidity victim. In addition, studies of this level of immune protection as phagocytosis were compared with the damage of parenchymal organs and the use of preventive measures by the proposed method. We use intra-abdominal thermometry and local supply of antiseptic



solutions as methods for prevention of posttraumatic postoperative complications and controlled them by using a efficacy of phagocytosis and efficiency of elimination of immune complexes.

Therefore, in accordance to liver trauma it is important to determine disorders of immune responsiveness and especially in case of complications.

# Kulachek Y.V., Kulachek F.G. \*, Kulachek V.T. \* ESTIMATION OF SEVERITY OF THE EARLY PERIOD OF TRAUMATIC DISEASE IN VICTIMS WITH LIVER INJURY

Department of Surgery №2

Department of General Surgery\*

Higher State Educational Establishment of Ukraine
"Bukovinian State Medical University"

In providing surgical care to victims with abdominal trauma, especially the old and elderly, the most important is to assess the severity of damage and the objectification of the general condition of the patient. Liver injury remains a complicated and unsolved problem due to the peculiarity of its location.

The existing systems to evaluate severity of condition of the victims are not always successfully used in practice, due to the specific emergency care in general surgical wards, and these systems are not adapted to the elderly. Therefore, we conducted a comparative analysis of the previously suggested scales to evaluate patients' condition, determining the most objective ones and their modification considering the requirements occurring during treatment. 20 patients with trauma of the liver were involved in the study. The average age of patients was 48.

In accordance with the criteria determined by the status of the injured on the basis of the numerical system we determine the likelihood of lethal outcome (Px) by the following formula:

#### Px = eAW / (1 + eAW), where

AW – APACHE II x 0.146 + Wi + W2 + W3; W1–-3.517 (nonspecific coefficient); W2–+0.603 (coefficient for urgent surgery); W3 = diagnostic coefficient for emergency conditions; W3 = +0.503 for diseases of the gastrointestinal tract; W3 – -0.203 for intra abdominal infections.

Considering age and availability of chronic diseases the total score is determined multiplied by the coefficient appropriate for the category of multiple organ injury. According to the score detected among the victims we have differentiated risk groups for development of lethal outcome. The low risk (less than 20 points) was diagnosed in 6 patients in the group of comparison (retrospectively) and in 4 patients of the main group (in the process of treatment). Moderate risk (from 20 to 25 points) was diagnosed in 7 victims of the comparison group and 6 from the main one. High risk (from 30 to 35 points) was diagnosed in 9 patients from the comparison group and 3 of the main group. Extremely high risk (from 35 to 40 points) was diagnosed in 2 victims from the comparison group and 1 – from the main group.

Surgery according to traditional methods including timely operative treatment, adequate therapeutic measures and traditional post-operative management was essential to be performed for the victims with a low risk of lethal outcome.

### Maksymyuk V.V.

# A CLINICAL COURSE FEATURES OF ACUTE NECROTIZING PANCREATITIS IN PATIENTS WITH POLYMORPHISM OF R122N GENE OF CATIONIC TRYPSINOGEN (PRSS1)

Department of Surgery № 1 Higher State Educational Establishment of Ukraine «Bukovinian State Medical University»

According to the aim we have learnt distribution of R122H- polymorphism gene PRSS1 and N34S-polymorphism gene SPINK1 among the inhabitants of Chernivtsi region suffering from acute pancreatitis. Associative relations of the carriers of different genotype with its aetiology, complications of clinical courses, morphological forms and its complications were examined. One of the most important genetically determined mechanisms to prevent intraacinous activation of trypsin is neutralized action of cationic trypsinogen. The gene that codes for the synthesis cationic trypsinogen (PRSS1), located on chromosome 7 (7q35). It is known that the long arm of chromosome may meet autosomal dominant mutation - R122N. However, connection between the R122N polymorphism of the PRSS1 gene and the nature of a clinical course of acute pancreatitis remains almost not studied.

Background and Aims: A clinical course feature of acute pancreatitis in patients with R122N polymorphism of PRSS1 gene was examined.

In a study participated 88 persons with various forms of acute destructive pancreatitis. Among them, 53 (60.2%) men and 35 (38.8%) women. The average age of patients was  $45 \pm 17.1$  years. Patients genotype was partitioned into two groups: favorable R122R-genotype (control group), unfavorable R122H- and N122N-genotypes (experimental group). Genetic analysis was performed by setting the polymerase chain reaction. Statistical dependence between the values for normally distributed samplings were checked by way of determining criterion  $\chi^2$  according to Pearson and criterion of Fisher. Found that in acute pancreatitis patients with unfavorable R122H and H122H-genotypes polymorphism R122H of PRSS1 gene, develop extensive infected pancreatic necrosis occurs significantly more often than patients with a favorable RR-genotype. This adversely affects the final results of treatment of such