

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



МАТЕРІАЛИ

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hematoma was observed in 12. Rib fractures were complicated by pleural damage and the development of hemopneumothorax in 16 patients. When falling from a height, brain concussion combined with fractured ribs occurred in 38 cases, skull fracture, contusion of the brain with fractured ribs, sternum occurred in 22 cases, and compression of the brain by subdural hematoma occurred in 4 cases. In this traumatism, multiple rib fractures prevailed, which were complicated by hemopneumothorax in 10 patients. In case of household injuries, 12 patients had concussions, and 4 of them had concussions, which were combined with a fracture of 1-2 ribs, without complications.

Conclusions. So, with a combined injury of the brain and thoracic organs, middle-aged men are mainly affected, more severe brain damage is observed in car accidents, and the damage of thoracic organs - in falls from a height. In a comparative analysis of the clinical course of patients with combined and isolated TBI, the longer time of regression of general brain and focal symptoms of CNS damage with combined trauma attracts attention.

Marchuk O.F.

THE PECULIARITIES OF THE DIFFERENTIAL DIAGNOISTCS OF TRANSIENT SYNOVITIS IN CHILDREN

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Introduction. The significance of this research has been stipulated by the fact that transient synovitis is rather frequent in the form of a short-term non-specific inflammation of the synovial membrane of hip or knee joints in children (most often, in boys). The development of the process often results from a minor injury or a disease with a low subfebrile temperature, for example, bacterial diseases of the respiratory tract and oral cavity (tonsillitis, pharyngitis).

The aim of the study. Transient synovitis of the joints occurs quite often in children; however, the pathogenesis of this disease is not sufficiently investigated. Mostly, synovitis develops in children from one and a half years of age and up to the period of puberty.

Materials and methods. The purpose of this research was to determine the basic differences in diagnostic criteria of transient synovitis on the basis of 267 cases.

From 2019 to 2021, 210 children (122 boys and 88 girls) with a diagnosis of coxitis have been treated in the Pediatric Traumatology Department of the Chernivtsi Emergency Hospital. Their average age was $5,0 \pm 2,7$ years old. Based on the treatment, four clinical groups of the patients have been distinguished. The first clinical group included children with no particular changes in laboratory-instrumental indicators after the examination. Consequently, they were diagnosed with transient synovitis. The second clinical group included 12 children who were diagnosed with juvenile rheumatoid arthritis. The third group consisted of 10 children with Perthes disease. The fourth clinical group was composed of 46 children with juvenile epiphysiolysis, hematogenous osteomyelitis and tumors.

Results. According to observations, transient synovitis has an acute onset and rapid development. Pain appears in the morning, active and passive movements in the joint are limited, which resembles the symptoms of juvenile rheumatoid arthritis. A child finds it difficult to move the joint. What is more, he/she often tries to fix the leg in a gentle position. The limb is in a position of flexion, adduction and internal rotation, while the child resists any attempts at passive movements due to muscle spasm. This process is usually one-way, although occasionally it can be two-way. Children with transient synovitis usually limp and feel pain in the joint during palpation. They have either normal or slightly elevated temperature. As a rule, the duration of the disease is 10-12 days. However, since the pathogenesis of this disease is not sufficiently studied, thorough diagnostics is necessary before prescribing treatment. Differentiation helps identify a previous illness with a subfebrile temperature in the patient's anamnesis. It is important that when assessing the results of the laboratory examination, the reoccur complete absence of any changes in both general and biochemical blood tests. Besides, the acute phase indicators remain also intact – C-reactive protein, antistreptolysin-O, sialic acids and others. This allows excluding a large number of possible inflammatory and destructive diseases of the joints. An X-ray can visualize the expansion

of the joint space, whereas an ultrasound examination of the joints may show an increase in the amount of synovial fluid. In case any doubts arise, the puncture of the joint and the culture of synovial fluid, as well as the magnetic resonance imaging of the affected joints are advisable.

Conclusions. Thus, a differential approach to diagnosing and treating the children with coxitis has made it possible to distinguish clinical groups with specified diagnoses, which had an impact on further treatment tactics.

Rotar O.V.

COVID-19 INFECTION WORSENES PROGNOSIS IN PATIENTS WITH ACUTE NECROTIZING PANCREATITIS

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Introduction. COVID-19 has led to an unprecedented global health crisis. It primarily affects the respiratory tract, but previous reports of acute pancreatitis occurrence in patients with COVID 19 suggest possibility of direct injury of pancreatic gland by this virus.

The aim of the study: was to establish influence of COVID 19 infection on acute pancreatitis futures.

Material and methods. We present observation of three patients with acute necrotizing pancreatitis (ANP) and concomitant COVID-19. They were medium age persons with biliary and alimentary etiology of disease and BMI 33-41 kg/m². Severity of patients' condition were estimated by whole body CT, changes of oxygen balance and biochemical parameters of peripheral blood.

Results. All patients were diagnosed with COVID-19 within 4-9 days before initiation of ANP with bilateral pneumonia of 15-40% of lungs on CT. They were presented with persistent multi-organ failures and injuries over 50% of pancreas. Respiratory failure was established in all patients, renal and cardio-vascular dysfunction as well as intra-abdominal hypertension was diagnosed in two of them. Biochemical changes included prolonged prothrombin and partial thromboplastin time, elevated fibrinogen and D-dimer concentration (640-2580 µg/l) with normal amount of platelets as well as moderate hypertriglyceridemia (6.2-9.5 mmol/l). They received intensive care treatment with respiratory support, interventional treatment was applied to all of them with step-up approach. Diffuse hemorrhage from pancreas occurred in one patient on 6th day from onset as result of coagulopathy and several laparotomic interventions were necessary for control of it. Despite intensive therapy this patient died due to progressed ARDS (overall mortality - 33.3%). Rest patients survived, duration of intensive care treatment was 14-20 days.

Conclusions. COVID-19 infection worsens clinical feature of ANP. Severity of coagulopathy and ARDS could be determinants of negative outcome.

Solovei M.M.

METHODS AND MEANS OF VECTOR-PARAMETRIC POLARIZATION MICROSCOPY OF POLICRYSTALLINE FILMS OF RAT BLOOD IN DIFFERENTIAL DIAGNOSIS SEPSIS SEVERITY

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Introduction. Development and experimental testing of a new digital technique for objective differential diagnosis of septic process severity by statistical analysis of vector-parametric polarization images of laboratory rat blood films. To achieve this goal, we used a set of methods of Stokes polarimetric microscopic examination, parametric, statistical and information analysis of septic changes in the polycrystalline structure of blood films of laboratory rats. An experimental measurement of the coordinate distributions of the fourth parameter of the Stokes vector (crystallization parameter - CP) of digital microscopic images of blood films of laboratory rats was carried out at the location of a laser micropolarimeter, the optical scheme of which is given in scientific papers is presented in our work in fig. 1.