

DIFFERENT APPROACHES IN TREATMENT OF INFECTED NON-UNIONS

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Introduction: We present the case of a 60 years old patient involved in a car accident with trochanteric fracture and open type I comminutive 1/3 proximal right tibial fracture. For the treatment of trochanteric fracture DHS (dynamic hip screw) was used and for the tibial fracture we opted for plate and screws. Due to the absence of complete bone consolidation, the plate was removed and another surgery using intramedullar nail and plate for the tibial tuberosity was performed. Unfortunately patient did not follow the hygienic conditions as a consequence he contacted an infection which led to septic non-union. To treat this new situation the device was removed and an Ilizarov frame was used. This technique allowed radical resection of the infected bone. For lengthening procedures, a percutaneous "corticotomy" was used in which the accessible cortices of tibia were cut, avoiding as much as possible penetration of medullary canal. The wires were tensioned up to 130 kg to provide adequate stiffness for bone segment stability and correction of axial, translational and rotational deformities. Even with this lengthy period of fixing wear (1.5 months for each cm of lengthening), the Ilizarov procedure was very helpful for this patient who needed extensive resection of bone and reconstruction to achieve stability.

Methods: The treatment option was DHS for trochanteric fracture and plate and screws for tibial fracture. Patient developed non-union at the level of tibial metaphysis as a consequence the plate was removed. After the procedure we opted for intramedullary nail for tibial fracture and plate for tibial tuberosity. However the patient did not follow the postoperative indications as a result he developed septic non-union. Due to the infected non-union we opted for the Ilizarov technique.

Results: This technique was very effective in treatment of septic non-union, which needed large excision of bone. The patient recovered completely and regained the mobility of his leg.

Conclusion: The Ilizarov procedure benefits patients who need extensive resection of bone and reconstruction to achieve stability. Disadvantages include the time required to achieve a solid union (six weeks for each centimeter of lengthening) and the high incidence of associated complications (minor pin track infection, residual equinus contracture, a nerve palsy or unexpected sequel that can compromise the final results).

Keywords: Ilizarov technique, Trochanteric fracture, non-union, DHS, plate, screws, reconstruction.

COMPARATIVE ANALYSIS OF DIFFERENT TYPES OF SEPSIS

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Introduction: Sepsis is defined as the systemic inflammatory response to infection. Severe sepsis is considered as the major public health issue. In severe sepsis, local infection is accompanied by systemic neutrophils activation. Innate immune cells play an important role in pathogenesis of the sepsis. High numbers of blood neutrophils could be due to excessive recruitment from the bone marrow, the return of margined cells into the circulatory pool or both. The sequestration of neutrophils could be a key stage in the initiation of multiple organ failure and negative evolution of sepsis.

The objective of the study: The aim of this study was to examine whether the neutrophiles spectrum changes in different types of sepsis, thus being presumed the evolution of septic process.

Materials and methods: A retrospective study was performed on a total of 22 files, aged between 30 -68 years, hospitalized in surgery section "Sf. Treime" hospital from Chisinau in the period 2008 -2010. The analysis of 22 patients who have developed different types of sepsis was made. Patients were divided into three groups: abdominal sepsis (8 files), pulmonary sepsis (8 files) and nephrogenic sepsis (6 files)

Results and discussion: Comparative assessment of white blood cell count between abdominal, pulmonary, and nephrogenic sepsis reveals the mild deviation of the formula to the left till myelocytes 25%(3) and metamyelocytes 20% (2.5) in the group with abdominal sepsis 36,3% (8). This may mean that abdominal sepsis activates to a large extent in the regenerative processes of the bone marrow, that is accompanied by further depletion due to rapidly recruited bloodstream to the site of acute inflammation where they die in a large number.

The second place is held by both nephrogenic 27,4 % (6) and pulmonary 36,3% (8) sepsis with minimal deviation of leukocytosis to the left. At the same time patients with abdominal sepsis reveal the marked lymphopenia 13,9 which denotes excessive consumption of immunocompetent cells with the subsequent installation of lymphocytopenia. Lethality in the group of patients with abdominal sepsis is clearly increased (75%), indicating the installation of immunodeficiency and determined by lymphocytes anergy and apoptosis, compared with nephrogenic and pulmonary sepsis. This anergy could be explained by depletion of feed-back relation between lymphocytes activity and regenerative capacity of bone marrow. The analysis of the septic process denotes installation of immune disorders within 24 hours of onset whatever the sepsis type.

It was mentioned there are no crucial difference of prevalence of one or another type of sepsis.

Conclusion: The deviation of WBC to the left characterizes decreased phagocyte capacity of immature in spite of observed leukocytosis. This failure leads to a worsening of septic process. Such patients with primary infectious focus in the abdomen, prevents major risk of septic complications in structure of sepsis morbidity and lethality.

ANALYSIS OF THE IMPACT OF ADVERSE FACTORS OF THE PERINATAL PERIOD ON THE BIRTH OF PREMATURE INFANTS

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Introduction. For the past two years increased frequency of perinatal pathology is marked around the world, which causes risk of developing further children's disability. One of the main objects of perinatal pathology is premature babies.

Objectives:

1. Identify the relationship of perinatal outcomes of preterm delivery with special medical history, pregnancy, and gestational age.
2. To analyze the state of premature infants.

Materials and methods: A retrospective analysis of 60 premature infants, divided into 4 groups was made: from 35-37 weeks - I degree of prematurity was observed 30% children, with 32-34 weeks - II degree of prematurity - 36.7% children, with 29-31 per week - III and <28 weeks of IV degree of prematurity - 26.7% and 6.7% children, respectively. We used a questionnaire consisting of 100 questions.