

## CLINICAL AND THERAPEUTIC EVALUATION OF SURGICAL HERBAL HEPATIC CYCLE PATIENTS

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**Introduction:** The post-treatment analysis of clinical and socio-occupational status is a deceptive way in portal hypertension surgery in cirrhosis.

**Purpose:** To monitor the evolution of cirrhotic patients and the response to applied surgical treatment.

**Materials and methods:** A follow-up of 34 patients, followed at a distance of 1 month to 16 months post intervention for severe hypersplenism, examined clinically, biologically, edoscopically and imagistically.

**Results:** The information obtained revealed: the presence of esophageal varices with haemorrhagic imminence, reported in 36% cases, parenchymal decompensation, - in 2/34 patients, vascular decompensation - in 1/34 patients, alteration of liver biopsy samples - in 8/34 patients, portal vein thrombosis - 2/34 patients. In 82.3% (28 cases) there was a positive dynamics of evolution and quality of life when 17.6% (6 cases) of patients were enrolled in a higher class Child. At the end of the assessment 19 patients (55.9%) responded well, 11 (32.4%) - satisfactory response and 4 (11.8%) - unsatisfactory therapeutic response. The SF - LDQOL questionnaire, specific for chronic liver diseases, revealed significant physical impairment in 8 cases (23.5%) and the reduction of real bio - psycho - social capacity in 5 cases (14.7%) to operated patients.

**Conclusion:** Cirrhotic posttreatment patients should be considered at high risk of developing complications, requiring a therapeutic program at all stages of control.

## FORMATION OF BIOFILMS BY CLINICAL STRAINS OF MICROORGANISMS RESPONSIBLE FOR SURGICAL PYOINFLAMMATORY DISEASES IN CHILDREN

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The ability of microorganisms to exist in the form of biofilms creates considerable difficulties for medical practice, since in this case the resistance of bacteria to antimicrobial agents is greatly increased. Therefore, the purpose of this study was to scrutinize the ability to form biofilms by microorganisms isolated from children with pyoinflammatory processes.

The identification of microorganisms was carried out according to the generally accepted microbiological protocols of their isolation and cultivation. Testing of isolates for the ability to form biofilms was realized by measurement of optical density in standard units (absorbance units - AU) on the spectrophotometer «Multiskan EX 355». The statistical processing of the results was performed using the programs «Statistica 6» and «Biostat».

In the course of the study, *S. aureus*, *S. epidermidis*, *P. aeruginosa*, *E. coli*, *Klebsiella*, *Proteus* spp., and *C. albicans* were isolated. In most cases, microbial associations comprising from two to three types of microorganisms were detected, namely *E. coli*, *K. pneumoniae*, *S. aureus* in 26,8 %; *P. vulgaris*, *Enterobacter*, *S. epidermidis* - 7,9 %; *P. mirabilis*, *K. pneumoniae*, *C. albicans* - 13,4 %; *S. aureus*, *K. pneumoniae*, *C. albicans* - 23,7 %; *E. coli*, *K. pneumoniae*, *C. albicans* - 16,5 %; *S. aureus*, *P. aeruginosa*, *C. albicans* - 3,4 %; *E. coli*, *S. epidermidis*, *C. albicans* - 2,9 %; *P. vulgaris*, *P. aeruginosa*, *S. epidermidis* - 2,8 %; *S. aureus*, *P. mirabilis* - 2,6 % of cases. The obtained results indicated the prevalence of microorganisms of the Enterobacteriaceae in children with pyoinflammatory processes in the material examined.

The studies of the ability of clinical strains of microorganisms to form daily compound biofilms, as well as plankton cells and new biofilms, made it possible to establish that the maximum daily biofilms density and the highest plankton cell formation were registered in microbial associations of *S. aureus*, *K. pneumoniae*, *C. albicans* ( $4,56 \pm 0,19$  AU) and *S. aureus*, *P. aeruginosa*, *C. albicans* ( $4,87 \pm 0,14$  AU). Plankton cells of all investigated microorganisms formed secondary biofilms actively with the highest density in *C. albicans* ( $3,62 \pm 0,16$  AU), *K. pneumoniae* ( $2,96 \pm 0,14$  units), *S. aureus* ( $3,09 \pm 0,18$  AU) and *P. aeruginosa* ( $3,11 \pm 0,12$  AU).

Thus, as a result of the division of bacterial cells, biofilm-forming microorganisms produce plankton cells capable of attaching themselves to the mucous membranes, wounds, catheters, and IV-lines with following formation of the new colonies, subsequently transforming into dense secondary biofilms, which makes for the spread and formation of multi-resistant clinical strains of microorganisms.

These properties of virulent microorganisms prompt to the development of methods for destruction of biofilms and intensification of microflora inactivation in the focus of inflammation. Our studies showed that the above mentioned requirements relating to the effective influence on biofilms corresponded to the joint effect of ultrasound and ozone, which significantly increased the efficiency of the treatment complex.