

38

Spontaneous bacterial peritonitis and bacterioascitis. Microbiological and resistance profile in a third level hospital



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Background and aim: Spontaneous bacterial peritonitis (PBE) and bacterioascitis are frequent complications in cirrhotic patients with ascites. Treatment guidelines recommend third-generation cephalosporins (C3G) as the first choice, however, antimicrobial resistance in our setting is unknown. The objective of the study was to know the microbiological and resistance profile associated with PBE and bacterioascitis in our population.

Material and methods: Retrospective study, which included results from ascites fluid culture between May 2017 to May 2020. Adults with a diagnosis of PBE (> 250 PMN cel / ml^3 and a positive culture) or with a diagnosis of bacterioascitis (positive culture with <250 PMN cel / ml^3) were included. Incomplete records or non-cirrhotic ascites were excluded. Variables: sex, age, etiology, treatment, and bacteriology results. The analysis was descriptive.

Results: Of 242 files, 214 (88.4%) were included. 84 women (39.2%) and 130 men (60.7%); average age 61 years (range 26–91). 26/214 (12.1%) with PBE and 16/214 (7.4%) bacterioascitis. 42/214 (19.6%) cultures were positive, of these 26/42 (61.9%) had PBE and 16/42 (38.0%) bacterioascitis. The pathogens isolated in descending order were: E. Coli 21 (50%, 11/21 BLEE), S maltophila 5 (11.9%), Staphylococcus 4 (9.5%), Sphingomonas 2 (4.7%), Klebsiella 2 (4.7%), Candida 2 (4.7%), Enterococcus 2 (4.7%), Streptococcus 2 (4.7%), L. inocua 1 (2.3%), C. neoformans 1 (2.3%). The results of the antibiogram highlighted: resistance to Cs3G in 30.9% (13/42), to quinolones in 33.3% (14/42), carbapenems in 3/42 (7.1%) and to piperacillin / tazobactam in 1/42 (2.3%).

Conclusions: The positivity of the culture was low. The most frequent causal agent was E. Coli, similar to that reported in the literature. Rare isolated pathogens such as S. Maltophila and fungi can translate intense immunosuppression and multiple previous antibiotic exposures in this population. We found high resistance to antimicrobial groups commonly used in hospital such as cephalosporins and quinolones. Undoubtedly, the antimicrobial scheme must be adapted locally and dynamically according to microbiology results, in order to optimize the outcome in these cases.

Conflicts of interest: The authors have no conflicts of interest to declare.

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39

Frequency and characteristics of alterations in liver function tests (LFT) in adult patients with COVID-19 (preliminary report)



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Background and aim: Daily evidence arises from of other organs involvement in this new viral disease called COVID-19, several publications describe variable liver involvement, characterized

by cholestasis and mild hyperbilirubinemia. The objective of the present work was to describe the frequency and characteristics of alterations in liver function tests (LFT) in patients diagnosed with SARS-COV2 in our hospital.

Material and methods: Descriptive study type. Data obtained from database in COVID-19 unit. Hospitalized adult patients confirmed with SARS-COV2 diagnosis by using RNA through PCR were included, from April 7 to May 12, 2020. Demographic, biochemical variables were analyzed upon admission, as well as comorbidities and outcome.

Results: 27 out of 113 patients, including those with suspicious diagnosis, were confirmed with SARS-COV2 which at the time of the cutoff were also included in the analysis. Average age 50.7 years (range 25–91 years). Male sex 74% ($N=20/27$). 13 patients (48.1%) presented Liver Functions Tests (LFT) alterations, the cholestatic pattern predominated in 84.6% ($N=11$). Ferritin value ≥ 1000 ng / mL and severe Acute Respiratory Distress Syndrome (ARDS) had a Predictive Positive Value (PPV)=0.7%, Predictive Negative Value (PNV)0.7%, $S=0.7%$, $E=0.6%$ as a diagnostic marker. 20 patients have been discharged at the time of the cutoff, 4 remain hospitalized, and 3 deaths. 3/3 deaths had Liver Functions Tests (LFT) alterations. 55% ($N=11/20$) of discharged patients had LFT alterations. None presented liver failure.

Conclusions: Half of the patients affected with SARS-COV2 present LFT alteration, with predominance of cholestatic pattern in our sample. All deaths showed alteration at admission time, while 55% of discharged patients presented said alteration. The cause can be multifactorial, and involve hepatotoxicity due to drugs, deficient blood circulation, the effect of assisted ventilatory mechanics, among others, and not necessarily attributed exclusively to viral infection. Therefore, there is no evidence that suggests SARS-COV2 virus is directly hepatotropic. Serum ferritin could be useful in (ARDS) diagnosis secondary to SARS-COV2.

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40

Evaluación de marcadores fibroticos en células estelares expuestas al extracto metanólico de *Turnera diffusa*



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Background and aim: Activation of stellar liver cells is the cellular basis for the establishment of liver fibrosis. In search of drugs that reverse and/or inhibit the fibrogenic process, plants are important sources of bioactive compounds. *Turnera diffusa* methanol extract (METD) shows “hepatoprotective” activity. Aim: To explore the effect of METD on the expression of fibrotic markers, modulators of extracellular matrix proteins (ECM), underlying mitochondrial mechanisms and epithelial-mesenchymal transition (EMT) in an *in vitro* model of human liver stellar cells (LX-2).