

Category : **Sepsis: biomarkers**

A205 - Pancreatic stone protein accuracy in infection diagnosis and prognosis in liver failure patients: a case series

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Introduction:

Pancreatic Stone Protein (PSP) is a protein secreted by the gastro-intestinal tract, that seems to have a higher accuracy in sepsis detection comparing to other biomarkers.[1] It has never been studied in patients with liver failure (LF), that present an inflammatory imbalance predisposing to infection and organ failures.[2] Our purpose was to assess accuracy of PSP on diagnosis of infection and prognosis in LF.

Methods:

We conducted a prospective observational study on adult patients with LF consecutively admitted to the ICU of a university hospital in 2022-2023. Ongoing overt infection was an exclusion criteria. Daily measurements of biomarkers were performed until discharge, death or for 21 days. Analysis was performed adjusting baseline for first infection episode (median on D3), which was the reference for those non infected.

Results:

16 patients were included, 7 with acute and 9 with acute-on-chronic LF: median age 54(42-64)y, half female, SAPSII 57(49-67) and SOFA 12(10-12) on D1. Median duration of vasopressors and renal replacement therapy was 5 days and 4 for mechanical ventilation (IQR3-8; 2-9; 2-8, respectively). Half of patients were transplanted, 6 were submitted to plasma exchange or hemoadsorption (Cytosorb®), 8 had an infection and 7 died. 216 PSP measurements were performed, with a marked intraindividual variability between days. Infected patients showed higher values of PSP without statistical significance and PCT ($p < 0.05$ on D+1 and D+2) vs. non-infected ones (Figure 1). PSP was higher in non-survivors vs. survivors ($p < 0.05$ from D-1 to D+4). A positive strong correlation was observed between PSP and SOFA from D+1 to D+4 ($p < 0.05$, $0.7 < r < 0.8$; $0.5 < R^2 < 0.6$) and a trend on D+5.

Conclusion:

In this pilot study we showed PSP rises in LF, with higher levels in infected patients. It seems to be a potential useful biomarker assessing prognosis in patients with LF. Further studies are needed.

References:

- 1.Prazak J et al. Crit Care 25:182, 2021.
- 2.Rovegno M et al. Ann Hepatol 18:543–552, 2019.

Image :

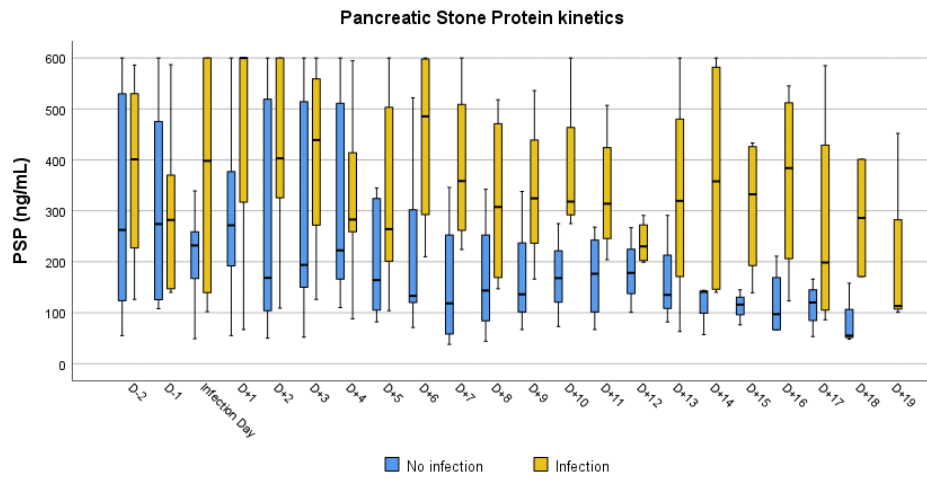


Figure 1 – Pancreatic Stone Protein kinetics between patients with or without an infection.