

Small Intestine Bacterial Overgrowth Is not Related with Disease Severity and Symptoms in Patients with Chronic Pancreatitis

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Context Small intestine bacterial overgrowth (SIBO) is considered as a factor possibly worsening symptoms and nutritional status in patients with chronic pancreatitis (CP) and pancreatic exocrine insufficiency (PEI) not responding to treatment. However, few studies evaluated the rate of SIBO in CP patients (range of positivity ranging 0-92%), employed different substrates and non-standardized procedures, and often investigated CP patients with previous resective surgery (cause of SIBO *per se*). **Objective** To assess the prevalence of SIBO in CP patients without history of resective surgery as compared with a control group. Secondary aim is to analyze factors related with SIBO in CP patients. **Methods** CP patients and controls (outpatients with upper-GI unspecific symptoms; exclusion criteria CP, IBD, celiac disease or previous surgery), had SIBO evaluated by H₂ glucose breath test (GBT) with a standard protocol according to Rome consensus conference. Positivity rate, basal, peak over basal (HOB) and H₂ values at 120 minutes were evaluated. For CP patients, relation between GBT results, abdominal symptoms, nutritional and clinical

variables was analyzed. **Results** Twenty-six CP patients and 22 controls were enrolled. Of the 26 patients (alcoholic aetiology in 11), 13 had PEI, 5 advanced CP (defined by M-ANNHEIM severity index) and none had previous resective surgery. GBT positivity rate was 5/26 (19.2%) in cases and 3/21 (13.6%) in controls (P=0.71). Mean H₂ basal excretion (9.78 ppm in CP vs. 5.47 ppm in controls; P=0.13), HOB (4.6 ppm in CP vs. 4.52 ppm in controls; P=0.95) and H₂ at 120 minutes (4.86 in CP vs. 2.20 in controls; P=0.08) were not different between the two groups. Diagnosis of SIBO in the CP group was not correlated with presence of PEI, severity of disease, abdominal symptoms, pancreatic enzymes and proton pump inhibitors therapy. **Conclusion** The rate of SIBO seems similar in CP patients without previous resective surgery and controls. CP patients with SIBO did not have more severe disease, more symptoms or worse nutritional status. These findings do not suggest a relevant impact of SIBO on the clinical course and management of uncomplicated CP but our findings deserve confirmation in a larger cohort.