

Severe Acute Biliary Pancreatitis and Type 2 Diabetes: Which Kind of Connection?

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Context Diabetes may increase the risk of acute pancreatitis and may also adversely affects the evolution of the acute pancreatitis (AP). **Objective** The aim of the study was to evaluate if diabetes is associated with higher incidence of severe acute pancreatitis and also of critical forms (early severe acute pancreatitis; ESAP) and, moreover, how diabetes may modify the evolution of acute pancreatitis. **Methods** Since 2001 to 2012 we treated 276 acute biliary pancreatitis. All severe acute forms of pancreatitis were 21.7% (n=60); 13 (21.7%) critical forms were identified among SAP. Clinical features, organ failure, therapeutic choices and results between SAP (n=47) and ESAP (n=13) were compared. We evaluated the prevalence of patients with diabetes in each group (AP, SAP, and ESAP). Furthermore, we evaluated the prevalence of diabetes by the criteria usually used to define the different severity grades of pancreatitis. **Results** The comparison between SAP and ESAP has shown the following results: impairment degree of pancreas (Balthazar CT score): SAP 2.3 vs. ESAP 3.85; abdominal compartment syndrome (ACS):

ESAP 7.6% (1/13); multiorgan dysfunction syndrome (MODS): ESAP 46.1% (6/13); simple organ dysfunction: SAP 51% (24/47) vs. ESAP 53.8% (7/13); hypoxemia: SAP 65.9 % (31/47) vs. ESAP 76.9% (10/13); pancreatic infections: SAP 6.3% (3/47) vs. ESAP 23% (3/13); mortality: SAP 4.2% (2/47) vs. ESAP 15.4% (2/13). The prevalence of diabetes in AP patients was 19.5% (54/276), 31.7% (19/60) in all severe acute forms of pancreatitis group and 38.4% (5/13) in ESAP group (P<0.05 chi-square test). Regarding the severity criteria, diabetes had a prevalence of 23.3% (14/60) in single organ dysfunction and 23.1% (3/13) in MODS and 6.6% (4/60) in septic complications of fluid necrotic collections. **Conclusion** The association of AP with the diabetes is in evidence: the risk of acute pancreatitis is raised by diabetes, but also of critical forms. In our experience diabetes may worsen acute pancreatitis in the first phase of systemic inflammation, otherwise it seems to be not strongly connected to the evolution of possible late septic complications.