**SCIENTIFIC RESEARCH PROCESS**

This study aimed to explore the influence of Metabolic Syndrome on immediate postoperative outcomes after pancreaticoduodenectomy. To analyze immediate postoperative outcomes after pancreaticoduodenectomy regarding metabolic syndrome, a retrospective study was conducted in two academic centers, from 2002 to 2014. Patients presenting with metabolic syndrome [defined as at least three criteria among overweight (BMI ≥ 28kg/m²), diabetes mellitus, arterial hypertension and dyslipidemia] were compared to patients without metabolic syndrome. The analysis showed that metabolic syndrome did not jeopardize postoperative outcomes after pancreaticoduodenectomy. Also, usual prognostic factors related to pancreatic fistula (soft pancreas texture, pancreatic duct diameter<3mm and BMI > 30kg/m²) were statistically associated to pancreatic fistula. Such results were unexpected: an increased rate of pancreatic fistula and mortality would have been in accordance with scientific literature. Such discrepancies suggest that the definition of Metabolic Syndrome is currently inappropriate and fatty pancreas needs to be assessed with an international consensual histopathological classification, making this analysis a major asset in current literature.