

**PL 3****Effect of high-dose pancreatic enzyme replacement on prevention of postpancreatectomy hepatic steatosis after pancreatoduodenectomy: A prospective cohort study**

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Introduction : Postpancreatectomy hepatic steatosis (PHS) is a long-term complication of pancreaticoduodenectomy (PD), which has been not well noticed. The aim of this study was to evaluate the effect of high-dose pancreatic enzyme replacement therapy (HPERT) on prevention of PHS after PD by analyzing prospectively collected data.

Methods : Among patients who were assigned randomly to receive HPERT (40,000 IU of Norzyme® for 3 months or placebo in the previous prospective study (Clin Gastroenterol Hepatol. 2020;18:926–934), 94 patients who had unenhanced computer tomography (CT) scans at preoperative and postoperative 1 year were enrolled in this study. PHS was defined when mean CT values of the liver were < 40 Hounsfield unit (HU) or 10HU lower than values of the spleen. The incidence and risk factors of newly developed PHS at postoperative 1 year were analyzed.

Results : There were 42 patients in the HPERT group and 52 patients in the placebo group. The incidence of PHS was significantly lower in the HPERT group (4/42) compared with the placebo group (12/52) (P<0.001). Multivariate analysis identified placebo intake (odds ratio[OR]1.640, p=0.020), preoperative BMI>24 (OR 9.065, P=0.032), body weight loss>5% in postoperative 3 months (OR 2.087, P=0.024) as independent risk factors. Subgroup analysis showed that the lower incidence of PHS after HPERT compared with the placebo control were consistent in high risk groups: preoperative BMI>24 (HPERT vs. placebo, 3/14 vs. 13/22, P=0.019) and body weight loss>5% (4/12 vs. 30/46 p=0.013).

Conclusions : The results revealed that HPERT significantly reduced the development of PHS after PD.

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