Surgical approach of chronic pancreatitis: frey’s operation, 10-year single center experience in Korea

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Purpose:
Chronic pancreatitis (CP) is progressive inflammatory disease which leads to destruct pancreas parenchyma irreversibly. So patient feels chronic pain and suffers with dyspepsia or Diabetes Mellitus (DM) by permanent exocrine and endocrine pancreas functional loss. Main indications of surgical intervention for CP are intractable pain, malignancy suspicions, and failure of other method like medical and endoscopic managements. There are many methods in surgical procedure. Among them, Frey’s operation, which is known as a short operation time and a few complications, is preferred in many areas as surgical treatment of chronic pancreatitis. We would like to report our Frey procedure cases because there were few paper about that in Korea.

Methods:
This was a retrospective study of 24 patients with CP, who underwent the Frey procedure at Gangnam severance hospital between January, 2007 and December, 2017. We evaluated fecal elastase level. Endocrine pancreatic dysfunction was based on the diagnosis with diabetes mellitus. Categorical variables were compared by Chi-squared, Fisher’s exact tests, Wilcoxon signed rank test. Continuous variables are presented as mean (±SD) and were compared using an independent two sample t test or the Mann–Whitney U test. All statistical analyses were performed using the statistical software SPSS (version 22; Chicago, IL, USA).

Results:
Pain was significantly reduced after operation. After frey’s operation, 19 patients didn’t complain of abdominal pain, 5 patients complained abdominal pain. Factors of operation like time, blood loss are similar among patients. The mean estimated blood loss were 449.57ml. The mean operation time was 286.67min. Compare preoperative with postoperative patient condition, HbA1c and fecal elastase had no significant differences (Z = -0.484/-1.604, p = 0.629/0.109). Body weight and body mass index (BMI) statistically decreased after surgery (Z = -2.968/-3.249, p = 0.001/0.003).

Conclusion:
This study was shown that the positive results in comparison of preoperative status and postoperative status in chronic pancreatitis patients. These results showed active surgical treatment had a good effect on patients with chronic pancreatitis.