

Comparison of Whipple surgery performed by mucosectomy pancreaticojejunostomy with conventional procedures

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Introduction: Whipple surgery has long been associated with a high mortality rate, which causes the surgeons to apply different methods of pancreas to the jejunum anastomosis to reduce the complications; including anastomotic leak. In this survey we compared the Whipple procedure by method of mucosectomy anastomosis of pancreas to jejunum with conventional methods.

Methods: In a clinical trial study 20 patients who needed to go under pancreatoduodenectomy operation, were divided in two groups by random. In first group mucosectomy anastomosis of pancreas to jejunum and in second group traditional Whipple method was done. Mortality and morbidities like as hospitalization days, starting of oral diet, transfusion and bleeding, leaking, fistula and infection were studied. All data expressed by ratio and percent comparison of quantities measures done by T independent test and qualified by Chi square test in SPSS 16, p less than 0.05 is significant.

Results: The average age of group 1 and 2 were 62 ± 11 and 60 ± 9 years ($p=0.6$). The length of hospitalization was 16.6 ± 7 and 13.7 ± 3.8 days ($p=0.3$) while starvation time in first and second group were 6.8 ± 1.5 and 8.2 ± 1.8 days after operation ($p=0.1$). The average of bleeding volume during operation was 120 ± 63 and 119 ± 95 ml ($p=0.9$). Operation time was significantly shorter in group 1 comparing with group 2 (5.7 ± 1 vs. 7 ± 1 hours; $p=0.001$). However in group 1 there was no leak and fistula as main complications of surgery but 2 patients had leak in group 2, both died because of its infection sequel two cases died in group 2 and

1 case died in group 1 due to gastric bleeding, but there was no significant difference between group 1 and 2 for complications and mortality ($p > 0.05$).

Conclusion: mortality occurs 2 times more in traditional method and leaking occurs in 20% of them while leaking and fistula were not reported in new method (mucosectomy), in new method operation time was also shorter significantly but studies with larger sample size to confirm mucosectomy method as a standard, safe and simple method in Whipple surgery operation is required..

Keywords: Mucosectomy, pancreatodudenectomy, complications, leak.