

Clinical Significance of Intraoperative Frozen Section Analysis of Pancreatic Cancer Surgical Margin at the Time of Pancreaticoduodenectomy

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Abstract

Background: Today, in the management of pancreas cancers, achieving an R0 resection is one of the most powerful independent predictors of long-term survival. The aim of this study is to assess the clinical significance of intraoperative frozen section analysis of the pancreatic surgical margin for pancreatic cancer during pancreaticoduodenectomy.

Material and Methods: We conducted a retrospective analysis of prospectively collected data of 37 patients who were operated for pancreatic head cancer and who were evaluated for surgical margin by frozen section analysis intraoperatively, between September 2013 and August 2014 in our center. The intra-operative biopsy reports were compared with final pathological reports.

Results: The mean age of the patients was 64.55(19-82) years (range), the mean tumor size was 3.96(1.16-6.25) cm (range) and the mean harvested lymph node number was 18.52(9-45) (range). In the intraoperative frozen section, one patient was positive for surgical margin (%2.7) who underwent total or complementary pancreatectomy.

Conclusion: To secure a tumor-free margin by frozen section, intraoperatively, may increase R0 resection rate in pancreas cancers. The preoperative estimation of tumor margin by endoscopic ultrasonography, computerized tomography or magnetic resonance imaging mostly correlate with intra-operative findings, however in suspected cases intraoperative frozen section for margin determination should be performed.

Key words: pancreatic cancer, pathological examination, cancer recurrences