Reappraisal of pancreatic adenocarcinoma undergoing pancreaticoduodenectomy

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OBJECTIVES

This study is to present the experience in pancreatic head adenocarcinoma and to reappraise the clinical presentations, surgical and survival outcomes at a single institute with high volume in pancreaticoduodenectomy.

METHODS

Patients undergoing pancreaticoduodenectomy for pancreatic head adenocarcinoma were included for study. Data on demographics, surgical and pathological characteristics, surgical risks and survivals were reappraised and compared.

RESULTS

There were 710 periampullary lesions undergoing pancreaticoduodenectomy, in which 207 (29.2%) were pancreatic head adenocarcinoma. The overall surgical mortality was 4.8%, with 3.6% in period 2 and 5.0% in period 2. The surgical morbidity was 35.3%, with 35.7% in period 1, 35.3% in period 2. Pancreatic leakage is significantly lower (3.4%) in pancreaticogastrostomy group than that (11.7%) in pancreaticojejunostomy. Only 3.9% were small tumor < 2 cm. There were 57.5% positive lymph node involvement and 77.4% perineural invasion. More patients underwent adjuvant or palliative chemotherapy in period 2 (42.2%) than in period 1 (14.8%). Pancreatectoduodenectomy was palliative resection in 44.9%, with 10.7% in period 1 and 40.3% in period 2. The overall 5-year survival for resected pancreatic head adenocarcinoma was 9.7%, with 3.7% in period 1 and 11.1% in period 2. The survival outcome after curative resection in period 1 was significantly poorer than that in period 2 (4.2% vs. 14.7% 5-year survival, \( P = 0.045 \)).

CONCLUSIONS

• Although surgical mortality has significantly decreased recently, pancreaticoduodenectomy continues to be a complex and technically-demanding procedure with high and unchanged surgical morbidity. The prognosis of pancreatic head adenocarcinoma has been dismal, chemotherapy might play a role in improving the survival. The poor survival outcome of pancreatic head adenocarcinoma might be a combined reflection of difficulty in early detection, aggressive biological behavior of tumor itself and complex surgical anatomy for resection.