Are Pancreatic Resections Cost-Effective in Elderly Patients?

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Context The impact on healthcare service of pancreatic resections in elderly patients is unknown. Objective To evaluate the costs of postoperative stay in elderly patients undergone pancreatic resections for malignancy. Methods From 2004 to 2013, 213 patients underwent pancreatic resections and were recorded in a prospective database. They were divided in three groups (<70 years, 70-80 years and ≥80 years) and analyzed regarding the costs and overall long-term survival (OS). Multivariate analysis was carried out to verify the impact of age, on postoperative costs and long-term results. Results The total costs of postoperative stay of pancreatic resections was higher in patients aged 70-80 years (11,461±9,352€; P=0.050) and in those ≥80 years (13,130±10,000€; P=0.032) in comparison to patients <70 years (8,855±8,479€). The cost of ordinary stay was higher in patients aged ≥80 yrs (9,325±8,855€) when compared with both patients <70 years (5,726±3,866€; P=0.002) and 70-80 years (5,856±4,769€; P=0.016). ICU stay costs were increased in patients aged 70-80 years (5,605±7,352€; P=0.020) respect on those <70 years (3,129±6,895€). Age, presence of comorbidities, jaundice and chronic renal failure increased the total costs by 15% (P=0.031), 25% (P=0.011), 29% (P=0.004), and 80% (P=0.001), respectively, at multivariate analysis. Total pancreatectomy reduced total costs by 12% (P=0.033). Age did not influence ordinary costs while cardiac disease, chronic renal failure, and jaundice increased them by 12% (P=0.044), 78% (P=0.002) and 17% (P=0.049), respectively. Total pancreatectomy and presence of hard pancreatic stump reduced ordinary costs by 18% (P=0.001) and 79% (P=0.048), respectively. Comorbidities and ductal adenocarcinoma increased ICU costs by 40% (P=0.033) and 18% (P=0.018), respectively. Age ≥80 years (HR=3.2; P=0.003), ASA score=3 (HR=2.2; P=0.011), comorbidities (HR=1.7; P=0.015), jaundice (HR=2.6; P=0.004), tumor-related pain (HR=1.8; P=0.001) and reoperation (HR=2.9; P=0.015) reduced the OS. Malignant cystic and endocrine tumors were related to a longer OS (HR=0.17; P=0.019 and HR=0.18; P=0.001, respectively). Conclusions Pancreatic resections in elderly patients with comorbidities affected by ductal adenocarcinoma were not cost-effective.