

## **Are Pancreatic Resections Cost-Effective in Elderly Patients?**

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**Context** The impact on health care 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 data base. 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.