

Pancreatic Resections in Patients Aged 80 and Over: A Meta-Analysis and Systematic Review

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Context The incidence of pancreatic and peri-ampullary cancer is expected to increase significantly among the elderly population. Recently, several authors have published data on peri-operative outcomes of pancreatic resections among the elderly. **Objective** Primary endpoint was to assess the difference in term of post-operative mortality after pancreatic resections between patients <80 years old and patients ≥80 years old. Secondary end-points were: post-operative morbidity, incidence of postoperative pancreatic fistula, delayed gastric empty, bile leak, infections or sepsis, pulmonary and cardiac complications, reoperation rate and length of hospital stay. **Methods** Articles were extracted from MEDLINE, Cochrane Library, Scopus and ISI-Web of Science until April 24th, 2013. Articles were excluded when they were not in English; when the study population was divided in group of ages by using a cut-off different from 80 years; if they were case-reports, review, guidelines, abstracts and letters to editor. The quality of selected studies was assessed with the Newcastle-Ottawa scale. Odds ratios (ORs) were compared with Mantel-Haenzel method by using the statistical software Review Manager Version 5.2

(The Cochrane Collaboration, Software Update, Oxford, London). **Results** Initial search identified 1,518 reference articles, of these 19 relevant articles were selected and reviewed. Data were extracted from 9 studies (no. of cases 12,930) which met the inclusion criteria. Patients aged ≥80 years had a significantly higher postoperative mortality (OR=2.16, 95% CI: 1.61-2.89; P<0.001), postoperative morbidity (OR=1.66, 95% CI: 1.38-1.99; P<0.001), cardiac complications (OR=2.54, 95% CI: 1.66-3.88; P<0.001) and a longer hospital stay (OR=2.00; 95% CI: 1.86-2.14; P<0.001) than patients <80 years of age. No significant difference were demonstrated between younger and older patients in terms of postoperative pancreatic fistula, delayed gastric empty, bile leak, pulmonary complications, infection or sepsis and reoperation rate. **Conclusions** According to the results of this meta-analysis, pancreatic resections in patients aged ≥80 should be carefully planned because of an increased risk of morbidity, cardiac complications, longer hospital stay and, most of all, an increased risk of postoperative mortality.