The outcomes of pancreaticoduodenectomy in patients aged 80 or older: a systematic review and meta-analysis

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Purpose: There is an increasing needed to consider pancreaticoduodenectomy (PD) for the treatment of pancreatic and periampullary malignancy in patients aged 80 and over, given the increasing aging population.
Methods: A systematic literature search was undertaken to identify selected studies that compared the outcomes of patients aged 80 years or over to those younger undergoing PD.
Results: In total 18 studies were included for evaluation. Octogenarian or older populations had significantly higher 30-day post-operative mortality rate (OR: 2.22, 95% CI = 1.48–3.31, $p < 0.001$) and length of hospital stay (OR: 2.23, 95% CI = 1.36–3.10, $p < 0.001$). The overall post-operative complication rate was higher in the older group compared to the younger population (OR: 1.51, 95% CI = 1.25–1.83, $p < 0.001$). Elderly patients were more likely to develop pneumonia (OR: 1.72, 95% CI = 1.39–2.13, $p < 0.001$) and experience delayed gastric emptying (DGE) (OR: 1.77, 95% CI = 1.35–2.31, $p < 0.001$). The incidence of post-operative pancreatic fistula and bile leak were not significantly different between the groups. Rehabilitation and home nursing care services was also more frequently required by the older patient group at the time of hospital discharge.
Conclusion: Patients aged 80 years and older have approximately double the risk of 30-day postoperative mortality and 50% increased rate of complications following PD. Careful patient selection is required when offering surgery in this age group.

Biography

Dr Yegi Sandy Kim (lead author) is a surgical registrar at Peninsula Health in Melbourne, VIC, Australia. She attained MD degree at University of Melbourne and Bachelor of Medical Science at the Australian National University.

Recent Publications

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