OPCAB vs MIDCAB in octogenarians with single-vessel coronary artery disease (from the KROK Registry)



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Background: Octogenarians are the fastest growing part of the contemporary cardiac surgical population. There is no strong data suggesting that minimally invasive coronary artery bypass (MIDCAB) is superior to off-pump coronary artery surgery (OPCAB) for isolated left anterior descending (LAD) in this particular group of patients. We aimed to show a real-life data and bring more evidence into this controversial topic.

Methods: All octogenarians who underwent isolated LAD off-pump coronary artery surgery (OPCAB) or minimally invasive coronary artery bypass (MIDCAB) procedure in Poland between January 2006 and September 2017, enrolled in the Polish National Registry of Cardiac Surgical Procedures (KROK Registry), were retrospectively analyzed. Preoperative data, hospital and long-term mortality were analyzed.

Results: The whole population undergoing coronary artery surgery in Poland was screened (n=147.409). 578 octogenarian patients undergoing OPCAB (LIMA-LAD single graft) and 140 octogenarians undergoing MIDCAB (LIMA-LAD single graft) for single-vessel disease were identified. Octogenarians scheduled for OPCAB were more frequently classified in CCS 4 (19.0% vs 6.4%, p=0.001), had a left main (LM) stem lesion (27.3% vs 16.4%, p=0.013) and peripheral artery disease (PAD) (15.7% vs 5.0%, p=0.001). Hospital mortality reached 4.8% and 4.3%, respectively (p=0.954). Long-term all cause mortality was similar in both groups (p=0.407).

Conclusions: In terms of hard outcome measures, MIDCAB is not superior to OPCAB among octogenarians scheduled for coronary surgery due to a LAD coronary artery disease.