Abstract citation ID: znac269.423

268 The Efficacy and Safety of Bariatric Surgery in Patients with End-Stage Renal Disease and Kidney Transplantation: A Systematic Review and Meta-Analysis

S. Fernando¹, J. Varma², F. Dengu³, V. Menon⁴, S. Malik⁵, J. O’Callaghan¹
¹University Hospitals Coventry and Warwickshire NHS Trust, Coventry, United Kingdom
²University Hospitals Coventry and Warwickshire NHS Trust, Bristol, United Kingdom
³University Hospitals NHS Foundation Trust, Oxford, United Kingdom
⁴Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom
⁵Western University, Ontario, Canada
⁶McMaster University, Ontario, Canada
⁷York University, Ontario, Canada
⁸University of Nairobi, Nairobi, Kenya
⁹Dalhousie University, Nova Scotia, Canada
¹⁰IWK Health Centre, Nova Scotia, Canada

Aim: Obesity is associated with adverse outcomes in end-stage renal disease (ESRD) and kidney transplant (KT) recipients. Bariatric surgery (BS) is an effective solution to obesity. The authors aim to summarise the evidence for the efficacy and safety of BS in ESRD or KT.

Method: A literature search was conducted using MEDLINE, EMBASE and Web of Science from inception to date (April 2021). Articles were categorised into patients awaiting waiting list acceptance, awaiting transplantation, undergoing simultaneous BS and kidney transplantation, and undergoing BS following transplantation in the past. Primary outcome was change in BMI with secondary outcomes as adverse events, graft outcomes and KT.

Results: Twenty-eight articles were selected: fourteen on patients awaiting listing (n = 1984), nine on patients listed for KT (n = 196), one on simultaneous BS and KT and ten on undergoing BS following KT (n = 198). Mean change in BMI for patients awaiting listing was -10.5 (-4.1 to -17.0, p = 0.001), change in BMI for patients listed for KT was -11.2 (-9.5 to -12.9, p<0.001) and change for patients with prior KT was -11.0 (-7.09 to -14.9, p<0.001). 60.4% of patients undergoing BS were successfully listed for KT. 74.1% of patients listed for KT undergoing BS underwent KT within 17 months (SD = 78.5). Time from KT to BS was 59.2 months (SD = 43.0).

Conclusion: BS is both safe and efficacious on patients with ESRD, those awaiting KT, and those with prior KT and should be considered when obesity is a hurdle to favourable outcomes.