Poor Mobility, Lack of Statin Use and Socio-economic Deprivation is Associated with Worse Survival after a Major Lower Limb Amputation: A 10 year Prospective Study from a Rehabilitation Center

Arsalan Wafi, MBBS MRCS; Luis Ribeiro, MBBS; Kate Stenson, MD FRCS; Paul Moxey, MD FRCS; Vijay Kolli, MS FEBPRM; Ian M. Loftus, MD FRCS; Peter J. HoltPhDFRCS

1St George’s Vascular Institute, London, SW17 0QT
2Roehampton Rehabilitation Centre, Queen Mary’s Hospital, London, SW15 5PN

Objective

National survival rates among vascular major lower limb amputees is well documented to be poor. However, there is paucity of knowledge on factors affecting long term survival in those receiving rehabilitation in a specialist centre. The objective of this study is to report on long term survival of major lower limb amputees after rehabilitation as well as identify factors leading to poorer survival.

Methods

All consecutive major lower limb amputation patients seen in Roehampton Rehabilitation Centre between January 2007 and January 2018 were identified from prospectively kept records held by the department. Demographics, aetiologies of limb loss, operative details, medications and mortality data were sourced from local and online records for the 10-year follow-up period. Predictors of survival were identified with a univariate screen and Cox regression models were used in multivariate analyses.

Results

A total of 805 patients underwent rehabilitation therapy for 846 amputation operations. Of these, 611 (76%) were male and 194 (24%) were female. Referrals were made for unilateral amputees (88%), bilateral amputees (10%) and amputees who underwent revision surgery (2%). Aetiologies included diabetes mellitus (DM- 323/846), peripheral vascular disease (PVD-361/846) and other causes such as trauma, malignancy, sepsis and complex regional pain syndrome (162/846). Living in a deprived area (p=0.04) and being further away from the rehabilitation centre (p=0.04) was associated with poorer survival. Having DM or PVD was associated with significantly shorter survival (p<0.005) compared to other aetiologies. Among the vascular patients, not being on a statin was associated with worse survival (p<0.005). There was no significant difference in survival between below-knee and above-knee amputees (p=0.81) or between unilateral and bilateral amputees (p=0.75). However, poorer overall mobility at discharge from rehabilitation was associated with poorer survival (p<0.005).
Conclusions

This study shows that in major lower limb amputation rehabilitation patients, poorer mobility post-rehabilitation, poor community based-medical optimisation and living in an area of socio-economic deprivation is associated with shorter survival.

Author Disclosures: A. Wafi: None; L. Ribeiro: None; K. Stenson: None; P. Moxey: None; V. Kolli: None; I.M. Loftus: None; P.J. Holt: None.