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THE IMPACT OF NON-TRAUMATIC LOWER EXTREMITY AMPUTATIONS (LEA) ON PATIENTS: A TEN-YEAR RETROSPECTIVE STUDY AT A TERTIARY CARE HOSPITAL IN CANADA

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A retrospective study was conducted at one Canadian tertiary centre reviewing below-knee amputations (BKAs) and above knee amputations (AKAs) performed from 1998 to 2007. Demographics, co-morbidity and mortality data were collected from patients' medical records. Univariate and multivariable Cox regressions were used to determine significant co-morbidities associated with mortality (hazard ratio-HR) controlling for the effect of other co-morbidities. Kaplan-Meier survival analysis was used to compare mortality difference between AKA and BKA patients (HR).

A total of 466 non-traumatic LEAs (239 AKAs and 227 BKAs) were performed on 408 patients. Overall, mortality rate was 23.8%. 67.6% of the amputees were male. 72.6% were smokers. Mean age at amputation was 66.9 ±12.3 years. Major co-morbidities included peripheral vascular disease, gangrene, hypertension and diabetes ($p<0.05$). Significant co-morbidities associated with mortality were: age in ten years ($p<0.001$), sepsis, renal failure ($p<0.01$) and coronary artery disease ($p<0.05$). The mortality HR of AKA patients was 1.77 times that of BKA patients ($p<0.01$).

Post-amputation mortality rate is high, with AKA patients faring worse. While not all limbs can be saved from amputation, the decision to amputate carries a significant mortality risk, demanding treatment of infection, and management of renal and cardiac disease. Tertiary prevention through early recognition and intensive management of ischemia, ulceration, local infection and lifestyle modification such as smoking is paramount.