

Reoperation and Complication Rates in Lower Limb Amputees Due to Trauma

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Purpose: Lower limb amputation is associated with significant morbidity and mortality. Reflecting the predominance of vascular or diabetic disease as a cause for lower limb amputation, much of the available literature excludes lower limb amputation secondary to trauma in the reporting of complication rates. This paucity of literature represents a research gap in describing the UK demographics and incidence of complications in lower limb amputation due to trauma, which we aim to address. In this paper, we will describe the rate of complications (defined as reoperation, infection, phantom limb pain, and neuroma) in lower limb traumatic amputees in a UK-based regional multidisciplinary amputee service.

Methods: This was a retrospective analysis of a prospectively collected database of all traumatic lower limb amputations secondary to trauma from a UK regional multidisciplinary amputee service. Patient records were consulted for evidence of reoperation, infection (superficial or deep), phantom limb pain, and neuroma. 292 amputations were screened, with 108 amputations in 99 patients included in the final data analysis.

Results: Records identified 108 lower limb amputations secondary to trauma in 99 patients with a mean age of 34 years (at time of amputation) in a majority male population (81%). The most common mechanism of amputation was road traffic accident, followed by train accident. Mean follow-up was 227 months (range, 0.5-734 months). 34% of patients underwent reoperation, and 25% had at least 1 episode of infection. Of those who underwent reoperation, 46% had evidence of infection and 24% proceeded to surgery for change of amputation level. 42% and 3.7% of patients described phantom limb pain and neuroma, respectively.

Conclusion: Our data demonstrate that lower limb amputations secondary to trauma exhibit higher rates of reoperation and infection compared to vascular or diabetic amputations. Conversely, we observed lower incidence of phantom limb pain and neuroma in traumatic lower limb amputations. To our knowledge, this is the first UK study to provide high-quality data describing the demographics and the incidence of complications such as reoperation, infection, phantom limb pain, and neuroma in lower limb amputations secondary to trauma.