

Patterns of lower extremity amputation and known risk factors among the lower limb amputees at Teaching Hospital Jaffna

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Background and Objective: Amputation refers to the surgical removal of a limb or part of a limb. The incidence of lower limb amputation is rising globally. This study describes the pattern of lower extremity amputation and known risk factors among patients who underwent lower limb amputations at Teaching Hospital Jaffna (THJ) during a 4-year period (1st January 2017 to 31st December 2020).

Methods: This is a hospital-based descriptive cross-sectional study based on secondary data. Data were extracted from the BHTs of 384 amputees. Descriptive and inferential statistics were performed using SPSS software. The relationships between variables were determined using the chi-square test.

Results: In total, 384 cases of major lower limb amputations were analysed; 134 (34.9%) patients in 2017, 72 (18.8%) in 2018, 67 (17.4%) in 2019, and 111 (28.9%) in 2020, had undergone lower limb amputation. Most amputees were in their sixth decade of life. Female to male ratio was 1:2.6. Indications for amputation were: 60.7% (n=233) chronic wound, 21.1% (n=81) after trauma, 12.5% (n=48) due to infection, 1.6% (n=6) due to tumours and 4.2% (n=16) due to other causes. Toe (66.4%, n=255), below the knee (24.0%, n=92), ankle (8.1%, n=31), and above the knee (1.3%, n=5) were the four types of amputations identified. Right-sided (50%, n=192), left-sided (47.9%, n=184), and bilateral amputations (1.8%, n=7) were identified. Diabetes mellitus (70.8%, n=272), hypertension (35.7%, n=137), chronic kidney disease (10.7%, n=41), congestive cardiac failure (6.3%, n=24), congenital vascular abnormalities 1% (n=4) and others (25.8%, n=99) were documented; 7% (n=27) were smokers and 5.2% (n=20) consumed alcohol; 15.4% (n=59) had a past history of amputation. Only one death was documented in the BHTs within the 4-year period. There was a significant association between age group ($p<0.001$), sex ($p=0.025$), comorbidities ($p\leq 0.05$), and indication.

Conclusions: The highest number of amputations was undertaken in 2017. The majority were toe amputations due to chronic wound in patients with diabetes mellitus. Screening measures should be undertaken to identify and educate risk groups regarding glycaemic control and foot hygiene.

Keywords: Lower limb amputation, Risk factors, Comorbidities