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Prevalence and risk factors of lower limb amputation amongst diabetic foot ulcer patients at The Townsville Hospital

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Background/Aims: Diabetic foot ulcer (DFU) is a common occurrence in up to 15% of the diabetic population. Lower limb amputation (LLA) is considered a frequent outcome yet, despite having the highest rate of diabetes in the country, there is limited published data on DFU in North Queensland. The aim of this study is to determine prevalence and risk factors for LLAs amongst DFU patients at The Townsville Hospital (TTH). Methods: A retrospective study was conducted on patients attending TTH High Risk Foot Clinic (HRFC) between 2010 and 2012. Clinical and biochemical features were extracted from the patients’ charts. Results: A total of 61 subjects presented with a DFU, out of which 43 (41%) underwent a LLA, with a male:female ratio of 1.7:1. The mean age of amputation was 69.20 ± 11.78 years, with a significant difference between the Indigenous Australians and Caucasians cohorts. Diabetic retinopathy (OR 4.13, 95% CI 1.72-9.628, P = 0.001) and past history of coronary artery bypass graft surgery (CABG) (OR 4.0, 95% CI 1.094-14.624, P = 0.028) were factors strongly associated with amputation. Other variables that showed positive associations but fell short of statistical significance included Indigenous background, and history of hypertension, peripheral neuropathy and nephropathy. Conclusion: We report high prevalence of LLAs occurring in almost half of the DFU cohort at the HRFC, which were found to be closely linked with a history of retinopathy and CABG surgery. Further prospective studies are required to confirm our findings.

Gait speed, outcomes and frailty

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Background/Aims: Recent evidence suggests that gait speed reflects the level of frailty of an older person. While it is known that disuse mobility function reflects discharge outcomes for older inpatients admitted into the geriatric evaluation and management (GEM) unit, it is not known if the patient’s medical profile has any impact. The aim of this study was to determine whether gait speed and patient medical profile are related to discharge outcomes. Methods: Data was collected from all the patients who were admitted and discharged from the GEM unit in 2013. Age, predismission abode and discharge destination were routinely collected. To determine the patient’s medical/frailty profile, presenting Diagnostic Related Group (DRGs) and gait speed (distanced walked in 6 minutes) at admission and discharged, were collected. Results: Data was collected from 124 patients with an average age of 83 years. The three most common DRGs were musculoskeletal disorders (44%), neurological disorders (28%), and cardiac/respiratory disorders (20%). DRGs were also coded as complicated (77%) or simple (23%). Of those who died or were discharged to nursing home (RAF) (11%), all had a medical/frailty profile of a complicated DRG and admitting average gait speed of 7 m/min. Those discharged home (86%) with mixed complicated (67%) and simple (23%) DRG had admitting average gait speeds of 13 m/min and 11 m/min, respectively. Those discharged to RAF vs home gained similar differences in gait speed (7-8 m/min) and the same applies with complicated DRG vs simple DRG (9 m/min). Conclusion: The level of medical frailty is demonstrated with gait speed and may impact on older patients’ discharge outcomes.

Effect of Cyclone Yasi on metabolic control in patients with type 2 diabetes

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Background/Aims: Natural disasters represent a severe form of acute stress which can lead to changes in metabolic profiles. The concept of allostatics can be used to explain how individuals adapt to physical and social environments. The aim of this study was to examine the impact of Cyclone Yasi on the metabolic control of individuals with type 2 diabetes. Methods: A retrospective chart audit was conducted at two general practices hit the hardest by Cyclone Yasi and compared to February to August 2011 (post-Yasi). Paired T-tests were used to determine significant changes in metabolic profiles before and after Yasi. Results: A total of 223 participants were included (141 affected, 82 less affected). Increases in all metabolic parameters were found in the affected areas post-Yasi with systolic blood pressure (9.7 mmHg, p<0.00), HDL (0.25 mmol/L, p<0.01) and LDL (0.04 mmol/L, p=0.02) being of statistical significance. The less affected areas showed increases in blood pressure, HDL and HbA1c, however only the increase in HbA1c was significant (0.4%). Interestingly, there was a fall in LDL levels (-0.2 mmol/L, p=0.02) in the less-affected group. Conclusions: After Cyclone Yasi, a greater deterioration in metabolic control was observed in the severely-affected areas compared with less affected areas.