Lower limb burns in diabetic patients: implications, outcomes and management

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Background
- 1.2 million Australians (5% of the population) are diabetic and this figure is increasing.
- Conditions associated with diabetes such as peripheral vascular disease and neuropathy increases the risk of sustaining burns, the severity of the burn and the systemic and local complications associated with these injuries.

Methodology
- Data from electronic case note databases was collected on 35 consecutive diabetic patients between 2015-2017 with a thermal injury below the knee.

Results
- The average injury TBSA was 2.5% and average length of stay was 8 days - 2.5 times longer than average for an equivalent size burn in our unit.
- 30% of patients required IV antibiotics for infection.
- 77% patients required operative management and 20% required >1 operation.
- 23% required some form of lower limb amputation (toes/forefoot/lower limb).

Conclusion
- Diabetic burn injury patient have increased complications and poorer outcomes.
- A significant number of these patients require re-operation or proceed to have some form of lower limb amputation.
- A multidisciplinary approach to the management of these complex injuries is vital.
- Information from our series of patients has helped us devise a multimodal treatment algorithm.

Figure 1: Operative management of diabetic burn patients.