

Prevalence of Symptomatic Venous Thrombo-Embolicism in Patients with Total Contact Cast for Diabetic foot Complications; A Retrospective Case Series

Roland King, MBChB, Simon Platt, MB ChB,FRCS, Gillian Jackson, MB ChB

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Introduction/Purpose: Venous thrombo-embolism (VTE) is a costly and potentially life threatening complication of limb immobilisation in a plaster of Paris cast. It is now generally recommended that patients undergoing limb immobilisation in cast are given LMWH therapy. The gold standard of treatment for diabetic patients with Charcot feet is total contact casting (TCC). TCC is also employed in the management of diabetic foot ulceration (DFI). Such casting is often prolonged with a time frame greater than 6 weeks. In general diabetic patients with established complication, (Charcot, DFI) often have comorbidities which increase the risk of VTE when the limb is immobilised. One would anticipate these patients to have a high rate of VTE given the immobile limb and comorbidities contributing to higher risk.

Methods: A retrospective review was undertaken. A search on patients' records up to April 2015 was undertaken to identify patients placed into total contact casting. These patients all had DFI or Charcot treated with a TCC. The patient's electronic and paper records were reviewed for any documentation of VTE, as well as other co-morbidities.

Results: 18 patients aged between 43 and 78 (mean 60) were identified. These patients were casted between one week to 3 months. None of these 18 patients sustained a documented VTE. None of them were on prophylactic anti-coagulation for the time they were in cast. All of the patients had a documented significant cardiovascular history (as well as Diabetes Mellitus), with HbA1c values ranging from 45 to 122 (median 74). Body mass index values for all of the patients were unavailable.

Conclusion: Despite high risk for the developing a VTE, none of the patients in our series suffered a documented symptomatic PE or DVT. We recognise the limitations of our study; small numbers with retrospective review. Nonetheless, we hypothesised that with prolonged contact casting in patients with significant comorbidity the prevalence of VTE would be higher than that observed. We believe that this is the first study looking for VTE in a TCC and diabetic population.

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