



SURGICAL TOURNIQUET BURNS: A PREVENTABLE INJURY

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Background:

The use of pneumatic tourniquets is very common in extremity surgery. There are complications associated with its use e.g. swelling, neurapraxia, vascular injury, compartment syndrome and burns. Burns associated with surgical tourniquets can be prevented by taking a few simple measures.

Method:

We report 2 cases of tourniquet associated burns. A 25 year old female underwent anterior cruciate ligament reconstruction. The surgery was performed under tourniquet control for 2 hours. An area of full thickness burn at the site of the tourniquet was noticed post-op.

The second patient was a 42 year old female who had an elective orthopaedic procedure on her elbow under tourniquet control. A mixed full/partial thickness burn was seen at the tourniquet site on removal of the plaster cast post-operatively. Details of the skin preparation and tourniquet inflation time were not available to the authors.

Results:

Both patients had a delay in referral to our unit. They had debridement with Split Skin Grafts and Recell (autologous non-cultured skin cells). The grafts had fully taken on post-op follow-up reviews.

- Discussion
- Chemical burns secondary to tourniquets are associated mainly with alcohol based skin preparations. But there have been reports of burns associated with chlorhexidine-Gluconate and 5% aqueous Povidone-Iodine. We suggest a few simple measures to prevent tourniquet associated burns.

Measures to prevent tourniquet associated burns

- Use of padding under tourniquets
- Water proof occlusive dressing to seal off the tourniquet
- Avoid pooling of skin prep around the tourniquet
- Inspection of tourniquet site post-op
- Early referral to a specialist centre in case of a burn.

