

Degloving

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Degloving is the avulsion of skin and subcutaneous fat from the underlying fascia, muscle or bone. A degloving injury may be open or closed. An example of an open degloving is a finger avulsion injury with loss of skin (Figure 3.10). Closed degloving injuries result from shearing forces, which may occur with motor vehicle collisions. The extent of these injuries is often underappreciated and much of the skin perforating may be non-viable (Figure 3.11). Disruption of vascular and lymphatic vessels may result in a characteristic - haemolymphatic collection between the fascial planes called a Morel-Lavallée lesion (Figure 3.12). Although these lesions were originally described as occurring over the greater trochanter the term is also used now for similar lesions in other anatomical locations. Assessing the viability of degloved tissue can be difficult and may therefore require more than one surgical exploration or definitive reconstruction. Non-viable and debrided skin may show fixed staining and thrombosis of subcutaneous skin may show fixed veins. Most surgeons serially excise the degloved skin until punctate dermal bleeding is seen from viable tissue. Intravenous fluorescein may also help delineate it requires specialist equipment and there is a small risk of anaphylaxis. More recently, the use of indocyanine green fluorescence has been reported. A useful classification system to help guide management describes four patterns of degloving (Summary box 3.5 severe multiplanar degloving. Summary box 3.5 9 Classification of degloving injuries in limb trauma

Subcutaneous fat Superficial fascia Deep fascia Muscle Bone Figure 3.12 Mechanism of injury for Morel-Lavallée lesions. Cross-sectional illustrations of the layers of tissue from the skin to the bone demonstrate how a shearing force can cause the comparatively mobile subcutaneous tissues to move relative to the comparatively fixed underlying deep fascia, causing shearing of perforating arteries (red), veins (blue) and lymphatics (green) and ultimately leading to the formation of a haemolymphatic collection in this potential space. (Adapted with permission from Bonilla-Yoon I, Masih S, Patel DB et al. The Morel-Lavallée lesion: pathophysiology, clinical presentation, imaging features, and treatment options. *Emerg Radiol* 2014; 35-43.) Figure 3.13 Fasciotomy of the leg. 1 Limited degloving with abrasion or avulsion 2 Non-circumferential degloving 3 Circumferential single plane degloving 4 Circumferential multiplanar degloving

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