

ABERRANT HEALING

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Scarring can be aberrant owing to a combination of genetic predisposition and environmental factors. The two main types of abnormal scarring are hypertrophic and keloid scars. Hypertrophic scars are elevated within the borders of the original scar and affect up to 15% of wounds. They tend to occur soon after injury, subsiding over time, and arise in areas of tension, particularly flexor surfaces. They may be successfully treated with topical silicone, intralesional corticosteroid injection, compression therapy or surgical excision. Keloid scars, by contrast, extend beyond the original wound borders and can be locally destructive; in extreme cases, they are debilitating. They occur more commonly in darker skin types and may arise some months after the injury, most commonly affecting the face, earlobes, deltoid area and presternal region. They are more resistant to treatment and may require repeated excision with adjuvant radiotherapy. Scars may also be widened, thin and depressed owing to excess tension across the wound. Scars may also be unstable and prone to recurrent ulceration and breakdown; this is most frequently seen at mobile sites (such as overlying major joints or the neck) when healing has been achieved secondarily. These scars can be excised (serially if necessary) or resurfaced with a flap in order to provide more robust coverage. Wounds that fail to heal properly may become populated with unstable and highly vascular granulation tissue ('over granulated') that is fragile and prone to intermittent bleeding. These may be treated with topical silver nitrate or corticosteroid or may require formal excision and reconstruction. A traumatic wound can lead to the development of a pyogenic granuloma. This is a benign proliferation of capillary blood vessels of the skin and presents as a painless red fleshy nodule that grows rapidly over several weeks and bleeds intermittently (Figure 47.5). It may be treated topically as per over-granulation tissue but frequently requires surgical excision. In chronic wounds, such as in pressure sores, burns or osteomyelitis, the chronicity of the inflammatory environment can lead to the development of a Marjolin ulcer. This is a rare but aggressive form of squamous cell carcinoma that has a high propensity for distant metastasis. A low index of suspicion must be observed in chronic wounds that undergo sudden phenotypic change, so early biopsy is advocated.

Figure 47.5 Pyogenic granuloma following a glass laceration to the base of the right middle finger.

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