Summary

Wounds and their management are fundamental to the practice of surgery. In the surgery of trauma, the wound is frequently the primary pathology. In elective surgery, it is through the wound that access is obtained to deal with the underlying pathology. The goal in management of cutaneous wounds is orderly and timely healing with an acceptable scar. Although wound healing proceeds in a systematic fashion, numerous factors, however, play a detrimental role in the wound-healing process. A precise understanding of these mechanisms of impairment is necessary when treating acute or chronic wounds. Attempts have been made for hundreds of years to hasten the healing process, but no condition or substance has been shown unequivocally to achieve this goal. More importantly, certain local wound conditions and systemic deficiencies that impair optimal wound healing have been noted.

Because epithelial tissue heals by scar formation rather than regeneration, therefore, a scar is the inevitable consequence of wound repair and it is normal to have scar at the site of tissue repair. Two forms of scar (hypertrophic scar and keloid scar) are excessive. Although hypertrophic and keloid scars can sometimes appear morphologically similar and the terms are often used interchangeably for excessive scarring, they are clinically and histologically distinct entities with different pathophysiologies and treatment approaches

Although many articles have been published on the management of hypertrophic and keloid scars, there is no universally accepted treatment protocol.

Prevention of keloid and hypertrophic scars remains the best strategy; therefore, those patients with a predisposition to develop excessive scar formation should avoid nonessential surgery.

Once a scar is present, it is essential to distinguish between hypertrophic scars and keloids in order to determine the appropriate treatment. Hypertrophic scars often regress spontaneously or with local measures such as corticosteroid injections or pressure dressings. Keloids, although benign, the social and psychological impact on affected individuals must be considered. A broad range of therapeutics is currently available for the treatment of keloids, but none have been shown to be completely effective in flattening existing keloids, reducing associated symptoms or preventing recurrence.

The best approach for keloid treatment employs multiple modalities appropriate for the stage of the lesion. Combining invasive methods such as surgery, cryotherapy, intralesional steroid injections, laser or radiotherapy with external or physical approaches has helped to optimize treatment efficacy. Medical therapies include local corticosteroids، interferon, 5-fluorouracil, and imiquimod. The diversity in accepted treatment modalities reflects the challenge of fibroproliferative scars, because no one method has proven to be superior to others.