## البحث الرابع

## **Treatment of Fingertip Injuries with Mid and Big-sized Defects by Secondary Intention Healing**

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**Introduction:** Secondary intention healing is not a novel technique in the treatment of fingertip injuries. Many published articles, recommended following this technique in small-sized skin defects  $(1-1.5 \text{ cm}^2)$ .

**Aim of study**: Assessment of results of secondary intention healing using semi-occlusive dressing technique in the management of cases with fingertip injuries with no or minimal bone exposure with mid and big-sized skin defects.

**Patients and methods:** From October 2015 till November 2019, a prospective study was conducted on twenty-one patients (20 males and one female) with 24 fingertip injuries. The patients' age was 31.3 years on average. The mean size of defects was  $2.7 \text{ cm}^2$ . Fifteen finger defects (62.5%) were more than  $1.5 \text{ cm}^2$ . All cases were managed by regular dressing once per week till full healing.

The size of the wound, level of amputation, bone exposure were recorded before the intervention. Time for healing, time to return to work were reported. Sensory examination using two points discrimination test was used for assessment of sensation 1 year post-injury. Wound infection, hypersensitivity, cold intolerance, parrot-beak nail deformity, and finger stiffness were checked throughout follow-up.

**Results:** All fingertip defects healed completely without infection. The time for healing was 4 weeks on average, and all patients resumed their activities within 6 weeks on average. The mean two-point discrimination test was 3.75 mm in comparison to a mean 3 mm at the contralateral side. Cold intolerance and hypersensitivity were reported in six cases and resolved gradual over three months. Five fingers with mild parrot-beak deformity were recorded but patients refused surgical intervention to correct it. None of the patient required revision surgery for inadequate bone padding.

**Conclusion:** Secondary intention healing can be used for the management of fingertip injuries with a size not less than 1.5cm<sup>2</sup> as long as there is no exposed bone protruding distal to the cut edge that needs flap coverage.