Ring Finger Necrosis Due to a Ring

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Received: 17 March 2017 / Accepted: 5 May 2017 / Published online: 10 May 2017
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Abstract Crush injury to finger is one of the common traumas in clinical practice. The injured patients often have a ring on their finger. The ring can be removed by non-operative techniques or by cutting the ring off and thus avoiding any long-term consequences. If the ring is not removed, the finger may swell and gangrene could occur. We present an unusual case of gangrene terminal finger due to a ring. The gangrene of this type is rarely reported in literature. The case is presented to stress the importance of removal of any circumferential foreign body on limbs before surgery.

Keywords Finger necrosis · Finger crush · Stuck ring · Swollen finger

Case

A 26-year-old male came with a gangrenous right ring finger, with a ring at the base of the finger, to our outpatient department. He sustained a door-crush injury in his ring finger 6 days before. He had total nail avulsion. The nail reposition and suturing were done under local anaesthesia in a nearby hospital. He shared with us picture of the hand and X-ray (Fig. 1). The patient was engaged to his fiancée a few days before injury. Hence, he did not allow the engagement ring to be removed from his finger. He said that the dressing was changed on the third post-operative day and the finger was

normal. The second dressing was done on the fifth post-operative day. The surgeon subsequently noted gangrene of the terminal phalanx and referred him to a higher centre (Fig. 2). The patient was not a smoker or diabetic. There was no history suggestive of any other hand problems. On inspection, the finger had gangrene with the line of demarcation at the distal interphalangeal joint crease. The ring finger was swollen from the proximal interphalangeal joint crease to the ring. The stuck ring was immediately removed. The gangrenous part of the right ring finger was removed and the stump closed.

Discussion

Finger crush injury is one of the common injuries occurring at home or in the workplace. After injury, patients usually go to a nearby hospital where physicians (*rarely plastic or hand surgeons*) see them first. If ring is present, it can be removed

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Fig. 1 Right hand and X-ray picture at the time of injury given by the patient

Fig. 2 Ring finger necrosis seen in the OPD after 6 days

by non-operative techniques or by cutting the ring [1]. If not removed, they may cause a tourniquet effect. The crushed finger has a certain degree of vascular compromise; further blood flow reduction by the tourniquet effect can cause severe tissue gangrene [2, 3].

Conclusion

It is important to create awareness among the medical fraternity about the importance of removal of any circumferential foreign body following limb injury.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Funding None.

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