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Kite String Injury Causing Digital Subtotal Amputation

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Kite flying, although a leisure sport, is becoming increasingly competitive. The recently introduced Chinese thread or *killer manja*, made of nonbiodegradable synthetic fibers coated with metal dust, is tough and hazardous.[1] A wide range of possible injuries can be sustained with a kite string, from minor lacerations to fatal injuries being reported.[2,3] We write this letter to emphasize the need for timely intervention, even in seemingly innocuous injuries due to kite string.

Recently, two patients presented to us with digital injury, sustained on account of the kite string. A 23-year-old boy with a broken kite string encircling his right little finger (►**Fig. 1**). Another 19-year-old boy suffered a circumferential laceration of the right ring finger while flying a kite. Both presented to us within 6 hours of injury and were found to have type 1 subtotal digital amputation (Beimer's classification), with maintenance of only bony continuity. On exploration, the digital flexor, extensor tendons, and both neurovascular bundles were found to be transected. One digital artery and two dorsal veins were repaired under microscope, using 16x magnification, with 10–0 nylon sutures. The digital nerves and tendons were repaired, and a dorsal blocking splint was applied.

Early active motion rehabilitation protocol was followed. No adverse events were noted on regular clinical monitoring, and both patients were discharged on seventh postoperative day. On final evaluation at 3 months (►**Fig. 2**), both patients showed good functional recovery according to disabilities of the arm, shoulder and hand (DASH) assessment. Two-point discrimination at fingertip was 6 mm and 8 mm in cases 1 and 2, respectively.

Fig. 1 Dorsal and ventral aspect of right hand with an oblique circumferential laceration of the little finger. The broken kite string is seen encircling the middle phalanx of the injured finger.

Fig. 2 Three month follow-up after repair of tendons and neurovascular structures.

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The successful outcome can be attributed to timely intervention, absence of a crush or avulsion component, involvement of a single digit, presence of a trained microsurgeon, and required infrastructure. As the digits have a warm ischemia time of 12 hours, it is important to reestablish circulation within this time period.[4] Therefore, it is imperative to understand that digital kite string injuries can be extremely severe and can lead to adverse consequences in the absence of a timely and expert surgical intervention. A high index of suspicion and early exploration for underlying neurovascular injury are crucial in salvage and function of digits.

Conflict of Interest
None declared.

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