Conservative Management Equally Effective to New Suture Anchor Technique for Acute Mallet Finger Deformity: A Prospective Randomized Clinical Trial

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The study was designed as a randomized - prospective study and included 29 patients (22 male, 7 female) aged between 17 and 61 years (mean: 36.4 years) who were scheduled for mallet finger treatment between June 2013 and July 2015. All patients who agreed to participate in this study gave their informed consent prior to their inclusion in the study for expected complications and results of the treatment procedure. The patients were included in the study after approval was received from the Ethics Committee (2014/288). Patients were randomized into two groups using closed opaque envelopes. Inclusion criteria were having Webbe–Schneider tip I and II fractures; Webbe–Schneider subtype A and B fractures, ability to provide closed reduction, and voluntariness to participate in the study. Patients with Webbe–Schneider subtype C fractures were excluded from the study because subtype C fractures mostly require surgery, conservative treatment has poor results.

Examining the types of injuries; in the surgical group, four patients had sports injuries, two patients were involved in an assault, and eight patients had fallen from a height; in conservative group, nine patients presented to the ED (emergency department) after falling, two patients had sports trauma, two patients were in an assault, and two patients had occupational accidents. One patient presented with bilateral mallet finger deformity, conservative treatment was performed on the left hand and open surgery and the suture anchor technique was performed on the right hand. The affected fingers were fore finger (n=4), ring finger (n=7), little finger (n=17), and index finger (n=1), and the majority of the patients were male, which matched with the literature. Two sets of criteria were used to assess the functional outcomes. First was Crawford's criteria [28], which gives 'excellent' for full DIP extension, full flexion, no pain; 'good' for 0-10° of extension deficit, full flexion, no pain, 'fair' for 10-25° of extension deficit, any flexion loss, no pain and 'poor' for poor: >25° of extension deficit or persistent pain and the second was Abouna and Brown's criteria [29], which designates 'success' for extensor lag <5°, no stiffness, normal flexion, and extension; 'improved' for extension loss 6-15°, no stiffness, normal flexion and 'failure' for extension loss >15°, DIP stiffness, impaired flexion.