Modified Suzuki Technique With Cable-Ties for Unstable Fracture-Dislocations of the Proximal Interphalangeal Joint

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To the Editor:

Various treatment options have been described for fracture-dislocations of the proximal interphalangeal joint (PIP).[1] The ideal treatment should be inexpensive, reproducible, and should permit early motion. The use of ligamentotaxis through distraction has proved to be a valuable tool to obtain and maintain fracture reduction.[2–9] Dynamic distraction external fixation for the management of unstable PIP joint fracture-dislocations and pilon injuries is a simple device, made with K-wires and rubber bands. This device is inexpensive, easely reproducible, with low interference with daily activities.

Different K-wire configurations have been published since now.[2–9] Some of the described frames are challenging for the surgeon and unwieldy to the patient. Moreover, rubber bands seem to be not always reliable on traction control.

We propose the use of simple plastic cable-ties (Figs. 1, 2), worldwide available, as cheap tool to maintain a stable distraction of the K-wire frame. Active mobilization of the PIP joint is not hindered by this tool.

We think this technique is a simple and time-efficient alternative to the dynamic external fixator based on rubber bands. It does rely on a stable and constant distraction force, with the chance to manage the amount of distraction under fluoroscopy.

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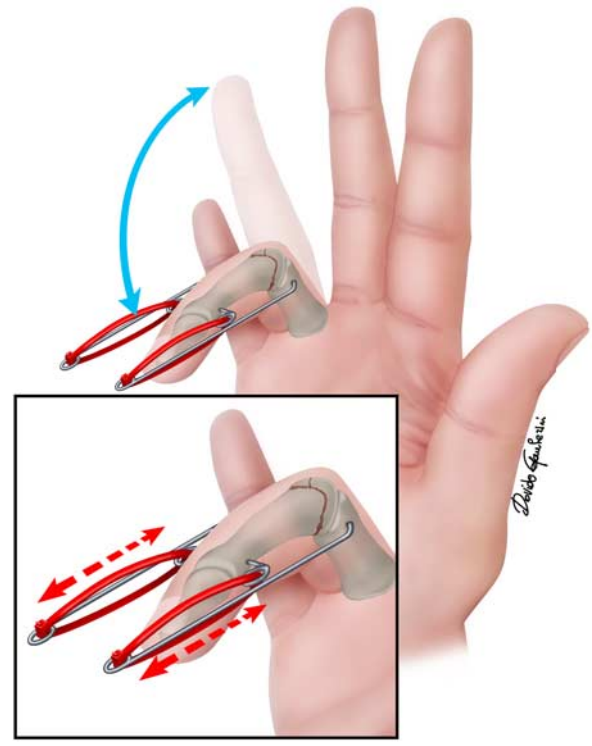

FIGURE 1. Plastic cable ties to maintain a stable distraction of the K-wire frame. Cable ties are the key point to mantain the distraction of the Kirshner wire frame. full color online

FIGURE 2. Postoperative appearance of the frame. full color online

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The Weakest Point of "The Shepherd's Crook" Technique: Suture Tension

To the Editor:

We read the article "The Pull-out K-Wire Anchorage: The 'Shepherd's Crook' Technique" by De Spirito et al with great interest. We want to express our opinions about this subject.

Pull out technique for tendon injuries has been used for a long time. A bone tunnel created at distal phalanx carries the bending moment to the palmar face of finger. Suture passing through the distal phalanx is secure to the button placed on the pulpa of the effected finger. Main disadvantage of this technique is worries about skin necrosis. A sponge between skin and button and elaborate care may prevent this complication.

The rotation effect of the repaired tendon can be defined as the bending effect. The force in the plane creates a moment effect on a selected rotation axis. The magnitude of the momentum depends on the strength of the force as well as the distance between the force and the axis. This distance between the force and the axis is called the moment arm. The magnitude of the momentum equals the force and momentum multiplication. If the moment arm lengthens, the bending strength also increases. We think that this technique lengthens the moment arm and this new situation results with loss of suture tension. We are looking forward to reading new study about authors' surgical results.

Zhang et al[1] described a technique about this issue and this study were published at *Journal of Hand Surgery American* at 2012 with the name of "Pull-out Wire Fixation for Acute Mallet Finger Fractures With K-Wire Stabilization of the Distal Interphalangeal Joint." Authors also have cited this study at their work. Are these 2 works different from each other? Shepherd's crook is a really creative name, is that the only difference between the 2 studies?

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Percutaneous Blunt Needle Reduction (PBNR) Needs Stable Fixation

To the Editor:

We read with great interest the manuscript titled "PBNR: percutaneous blunt needle reduction of bony mallet injuries" written by Miranda and colleagues. We want to express our views on some points.

Mallet finger is disruption of digit's extensor mechanism from the basis of distal phalanx. Mallet fracture is avulsion of the extensor tendon and fracture of the dorsal rim of the articular surface of distal phalanx at the same time.[1] If mallet finger deformity is neglected swan neck deformity and extension lag may develop.[2]

One third of all mallet fractures are associated with a fracture that involves the surface of distal phalangeal joint.[3] Treatment options are divided into 2 groups: conservative or surgical. Surgical treatment indications are: fractures involving $>33\%$ of the articular surface and fractures with palmar subluxation of the distal phalanx that cannot be corrected by closed reduction.[4,5] Extension block technique defined by Ishiguro et al[6] is generally the most preferred surgical method for closed reduction of mallet fragment. They used first K wire to block the fragment at desired position and the second one to lock the joint.

Miranda et al[7] described a similar technique. The difference of their technique from original one was that they have identified their technique to avoid the requirement for closed Ishiguro extension blocking wires or open fixation. They used a blunt needle, made a stab incision to reduce the fragment at operating room. Mallet fragment is very unstable, and it is hard to maintain the reduction because extensor tendon pulls the fragment. Our main criticism about their technique is that why they did not prefer to fixate this unstable fragment with K wire. A dorsal Zimmer splint is not superior to K wire fixation. We think PBNR represents a less-invasive but more risky to loose reduction management option for mallet finger.

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