Trigger fingers: A checkmark incision

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In surgical release of trigger fingers both transverse and longitudinal incisions are often used in the four fingers; however, in the thumb, a longitudinal linear incision can be somewhat tight and tethered and uncomfortable for many months. A transverse incision runs the risk of potential damage to the superficial underlying neurovascular bundles (1) and gives less adequate exposure to longitudinally release the flexor tendon sheath pulley. A V-shaped incision for trigger thumbs is advocated by many as the procedure of choice to avoid these two problems (2).

A V-shaped incision is unnecessarily long, and proper alignment of the skin margins involves first an interrupted suture at the apex followed by suturing of both limbs.

The author has devised a very simple variation on this, called a checkmark incision. This is as safe as the V-shaped incision but resembles a checkmark. The neurovascular bundles are easily avoided, and the tendon sheath released under direct vision. I close only the apex and the long limb with a running suture, and usually leave the short limb open to reduce postoperative edema where feasible (Figures 1A and 1B). The short limb is best placed proximally where there is less longitudinal force tending to open it.

Figure 1) A The checkmark incision leaving the short limb open. **B** Full flexion post-tendon release

The incision is planned by marking a central longitudinal line over the origin of the tendon sheath. The short limb is one-quarter to one-third the length of the long arm. The tip of the short limb is at or slightly over the midline of the centre of the ray with an angle of about 90° (Figures 2A and 2C). Visualization of the tendon sheath is equivalent to any other incision (Figure 2B), but the safety factor is greater than in a transverse approach.

Figure 2) A Proposed incision. **B** Excellent visualization with the Canica Palm Spring Retractor (Canica Design Inc, Canada). **C** Closed incision. The short limb component was oozing sufficiently that another suture was used

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This is a good technique for all trigger fingers, and avoids the potentially tight, tethered, uncomfortable longitudinal scar that can take months to resolve in second to fifth ray incisions.

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