



# การพัฒนาเครือข่ายการดูแลบุคคล ออทิสติก จังหวัดขอนแก่น

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การประชุมแลกเปลี่ยนเรียนรู้ จากงานประจำสู่งานวิจัย: R2R เพิ่มคุณค่า พัฒนาคณ พัฒนาบริการ  
ครั้งที่ 2 วันที่ 16 กรกฎาคม 2552



Preliminary Report :

**Percutaneous Trigger Finger Release  
using **Korat-Satja1 (KS1) Instrument****

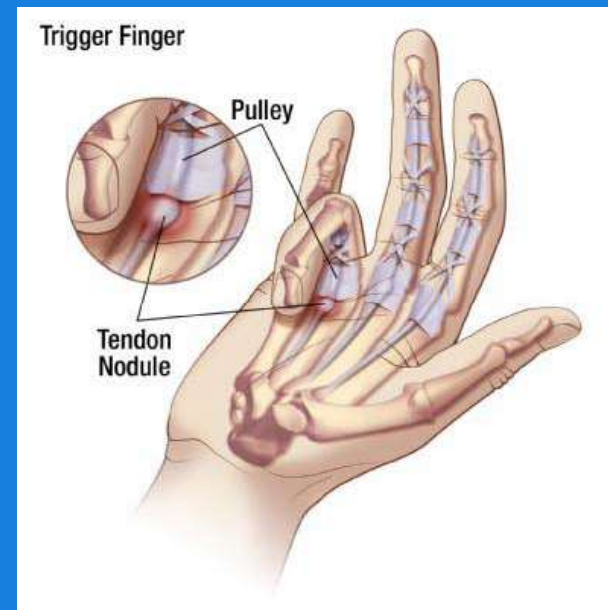
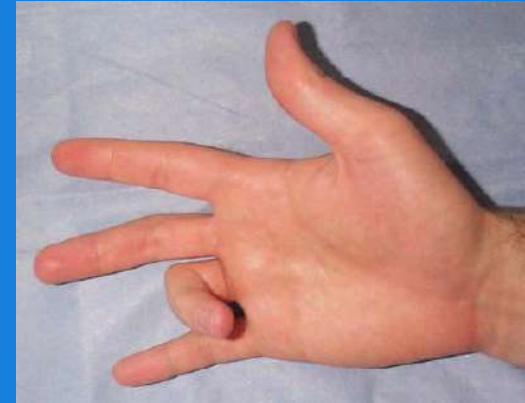
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# Trigger finger

common

- **Green's Classification 4 stage**
  1. Pre triggering
  2. Active
  3. Passive
  4. Contracture





# Treatment

- 1. Conservative** : rest, medication, and steroid injection.
- 2. Open release (standard)**
  - Success rates reported up to 100 %.
  - Complications : infection, digital nerve injury, scar tenderness and joint contractures.
- 3. Percutaneous release**



## Percutaneous release

- Use in outpatient department
- Success rates are over 90 %.\*
- Several method using various instruments have been reported, such as needle no. 19 or Push knife.
- Complications are rare but include tendon or digital nerve injury, hematoma, and persistent pain. \*



# Korat-Satja1 (KS1) Instrument



- Made out of stainless steel, withstanding common sterilization procedures.
- Not to be bend or fail during the release procedure.



## Objective:

- To describe a safe and easy percutaneous trigger finger release using KS1 instrument.
- To evaluate the short-term results and possible complications of percutaneous trigger finger release using a KS1 instrument.



# Patients and Methods

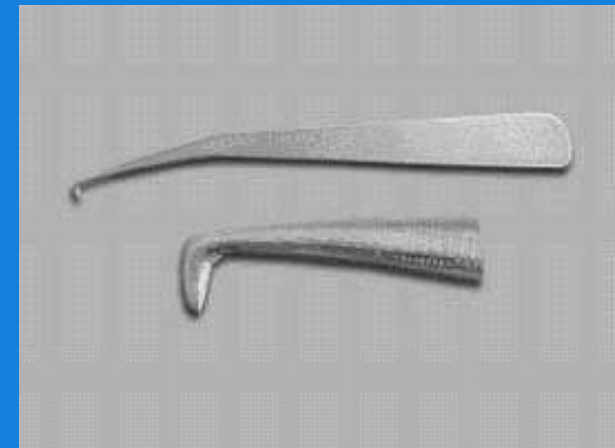
- Trigger finger
- June 2004 – August 2005

## Exclude criteria:

Trigger thumb, rheumatoid, and gout.

Trigger finger stage I, stage IV

Approved by ethics committee







**Trigger finger**  
20 patients, 31 digits

**Excluded**  
2 Trigger thumb  
2 stage I trigger finger

**Percutaneous release  
With KS-I**

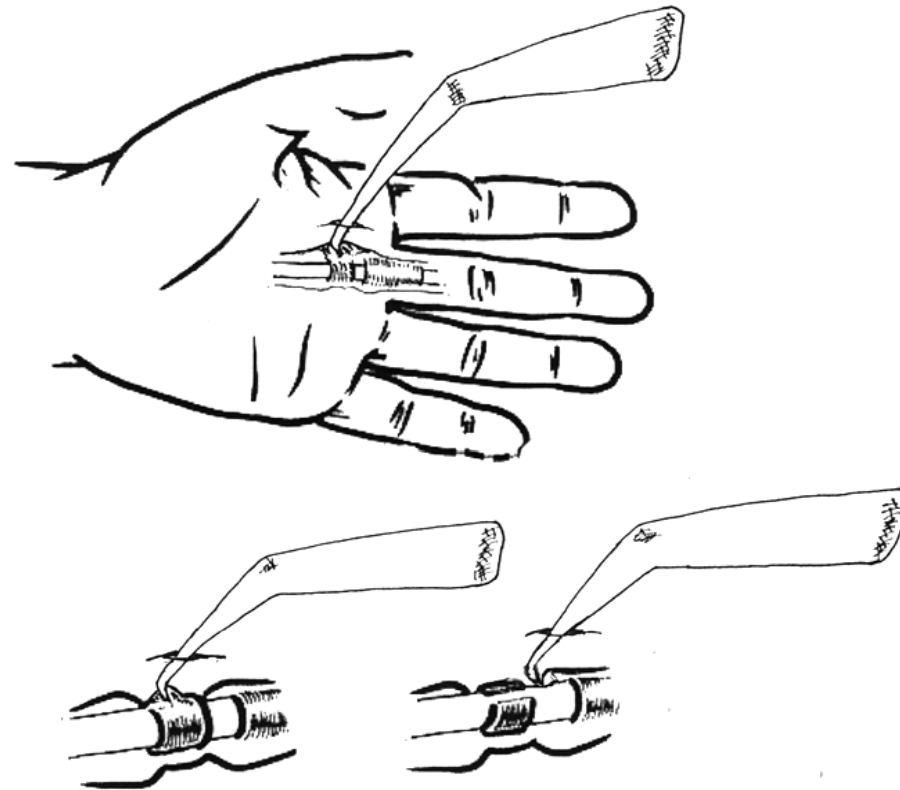
**Open technique**

**Completed A 1 pulley ?  
Nerve, Tendon injury ?**

**Follow up clinical outcome  
at 10 day**

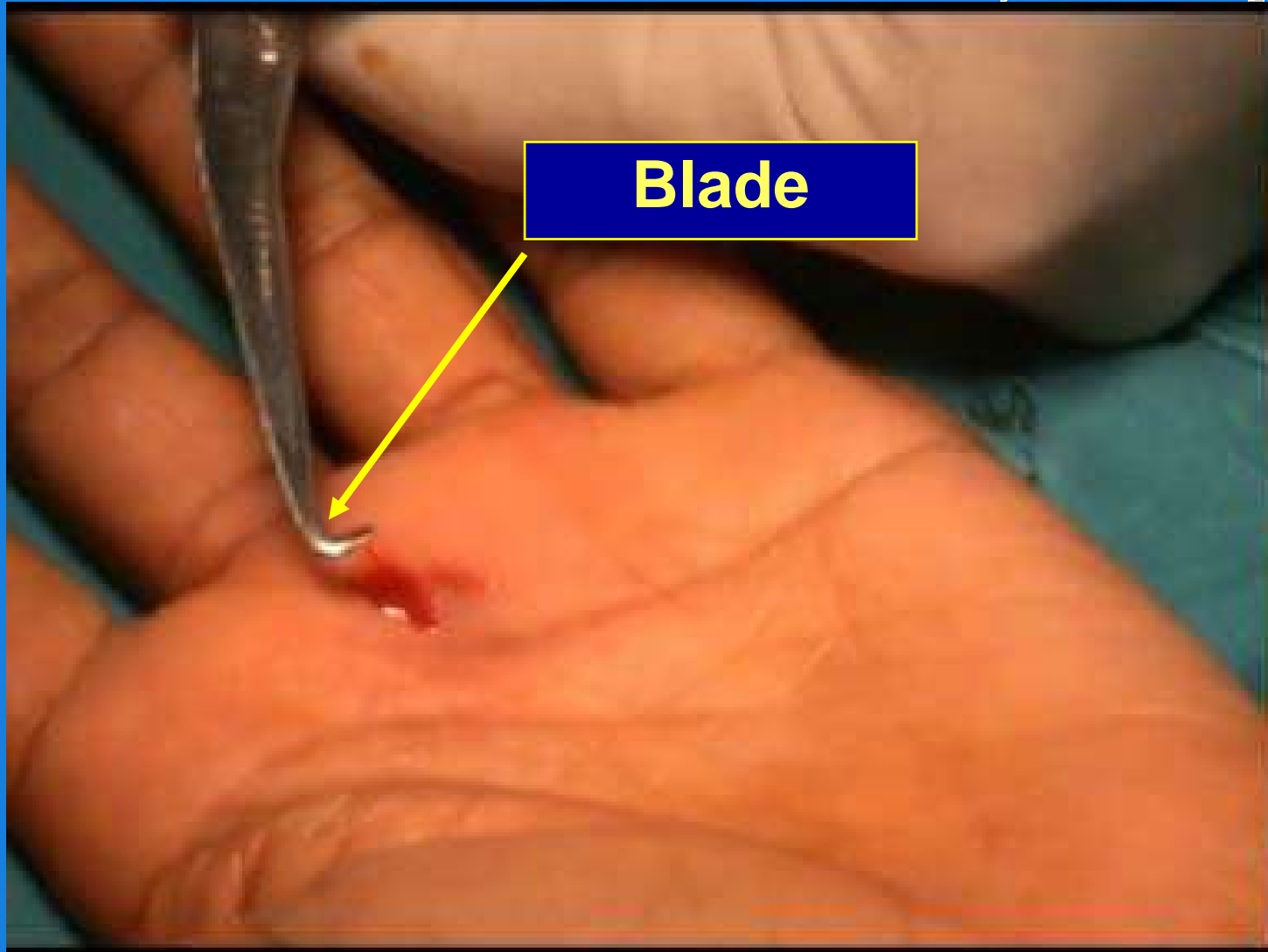


# Operative Technique

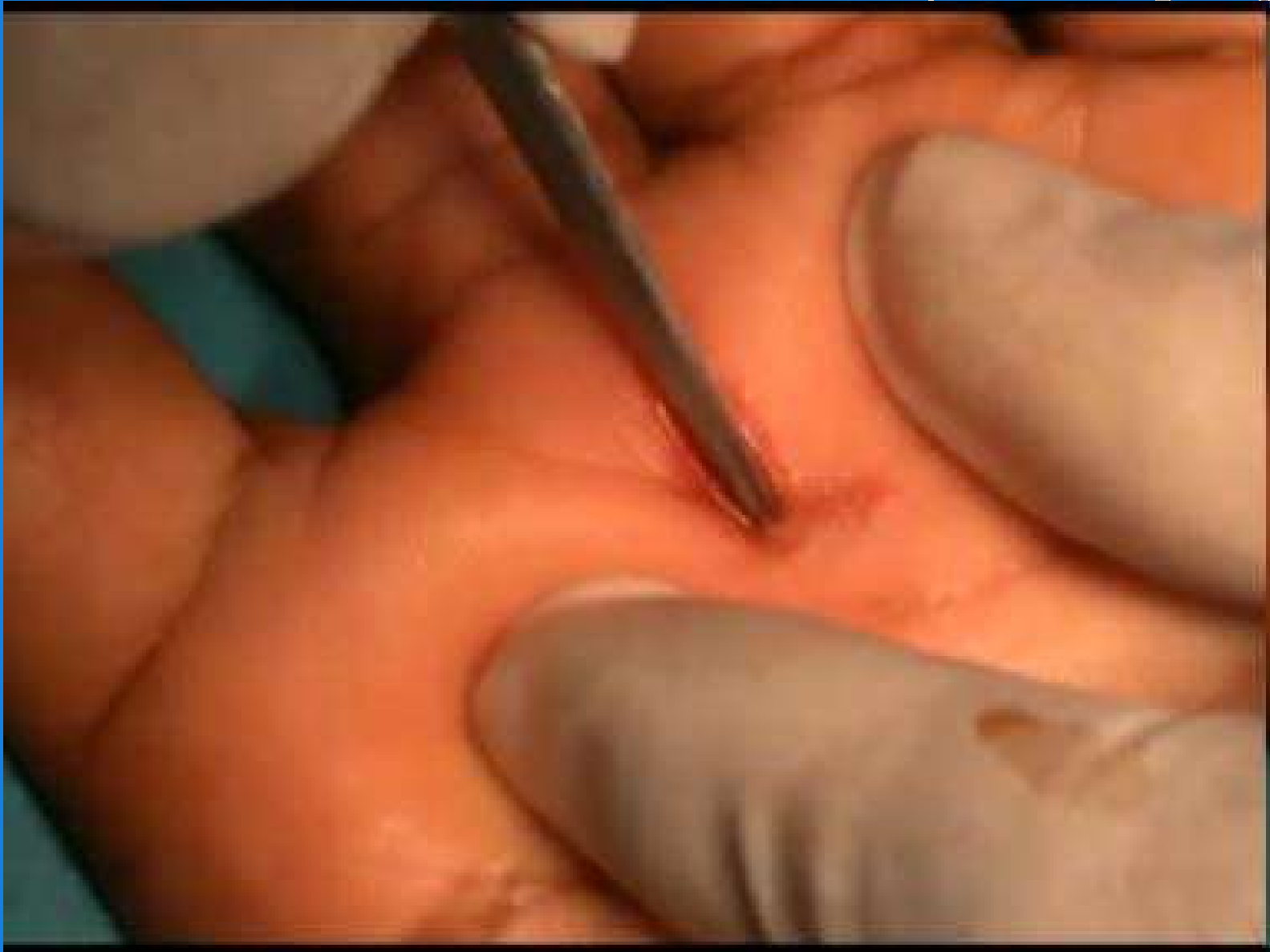


**'feel and pull' technique**

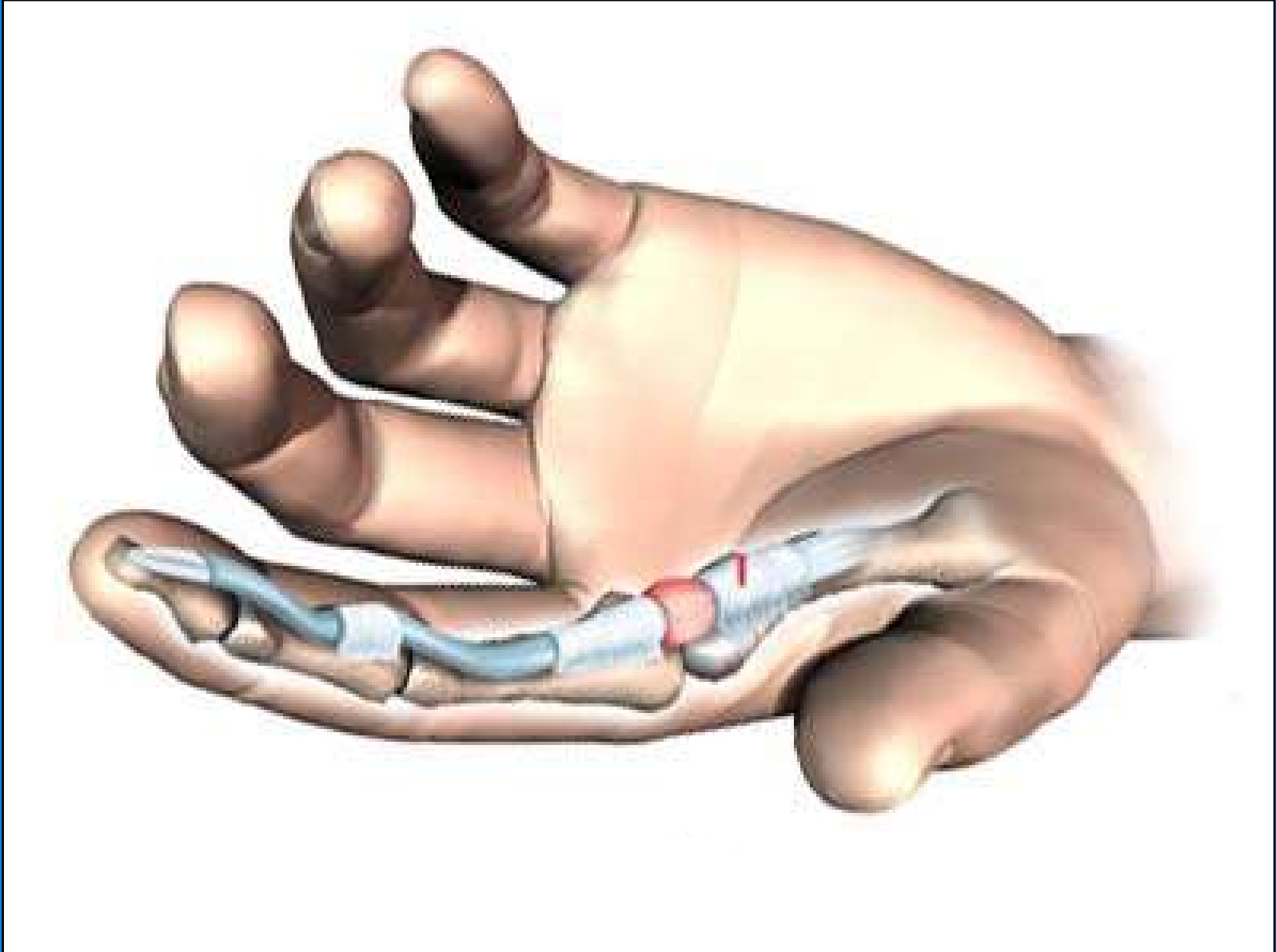




**Blade**





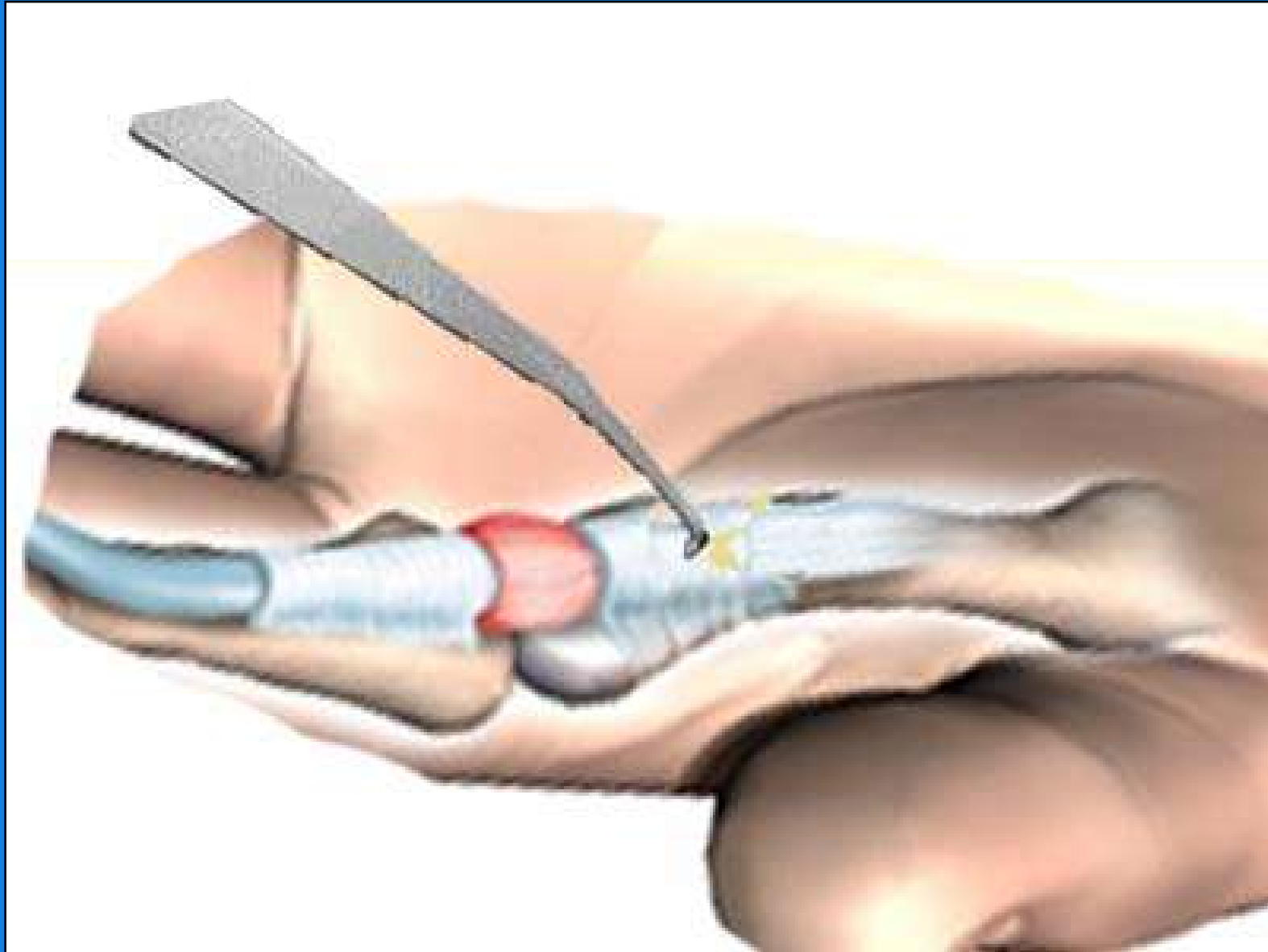


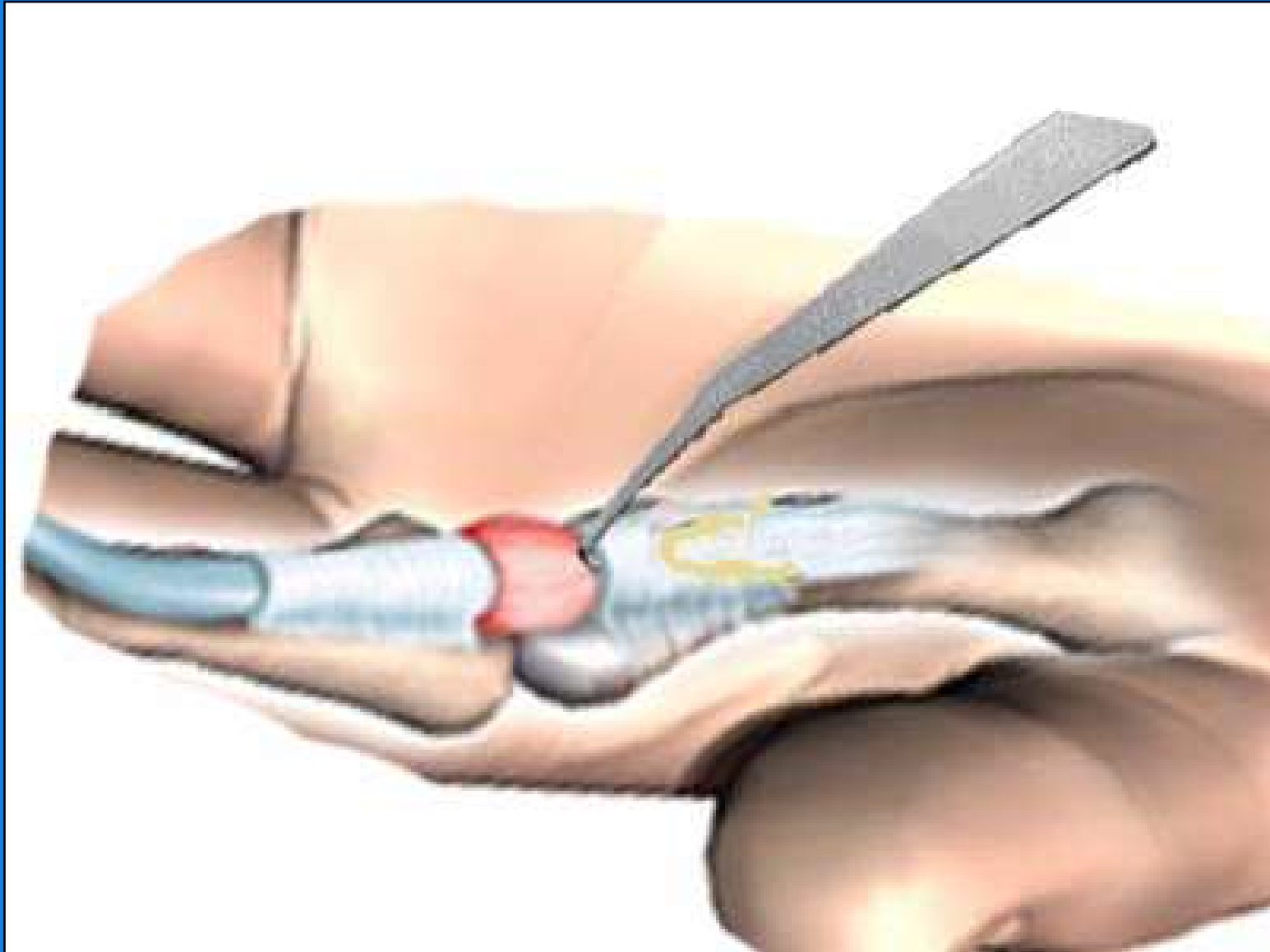


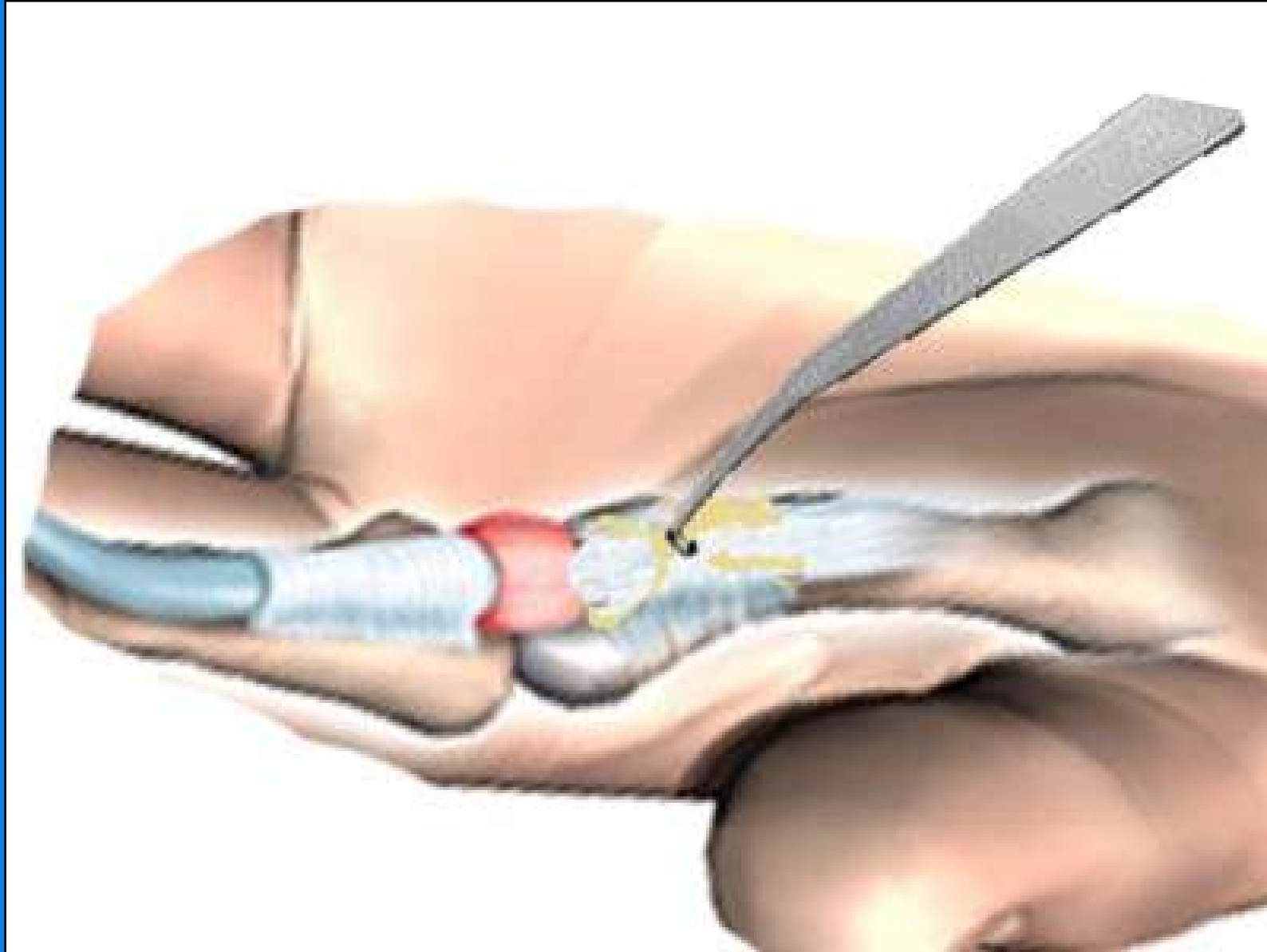


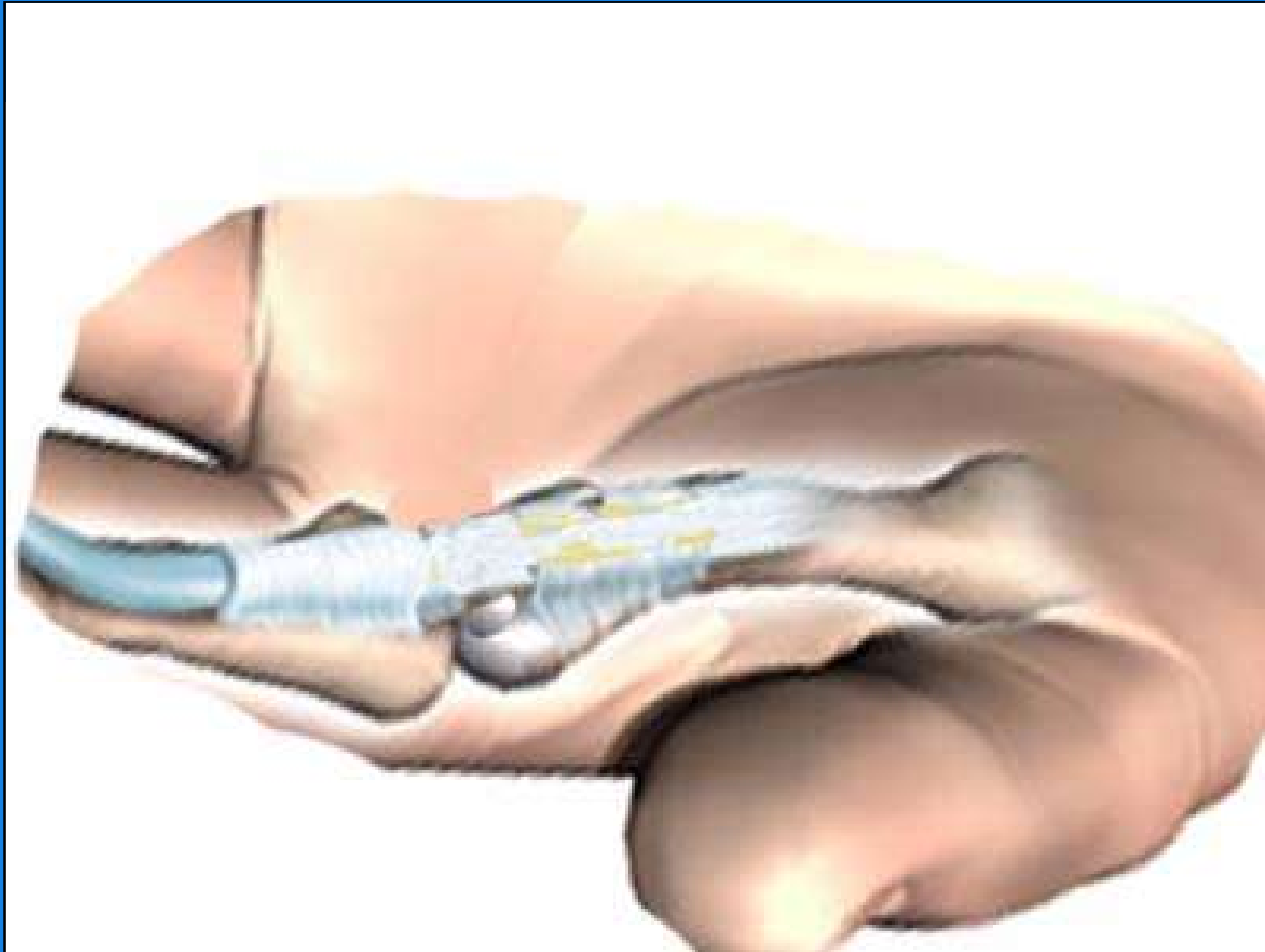












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# Result

- Mean age 50.4 years; Range 34 to 75 years.
- 16 females, 4 male.
- Mean duration of symptoms before treatment 11.8 months (2 months - 3 years)
- 10 patients had previous steroid injection.





# Result

- 20 patients, 27 trigger digits, stage II or III.
  - The index was involved in 5
  - The long finger in 14
  - The ring finger in 8.



# Result

- All A1 pulley were released by KS-1
- No Tendon, digital nerve, A2 pulley injury



# Result


At the 10 days after operation follow-up.

- **Triggering and pain were eliminated in 26 fingers postoperatively (93.1%).**
- **In one case, re-triggering 10 days later.**



# Discussion

Gilberts EC , int surg 2002

- **Prospective study**
- **100 pt**
- **percutaneous release vs open release**
-  **time, cost, pain**
- **no failure, no complications**



# Discussion

Kilic BA , Acta Orthop Traumatal Ture.2002

- **needle No.16** → open release
- complications:
  - **superficial abrasion of tendon**



# Discussion

Michael JD and Pen GM: J Hand Surg (Am)  
1999

- new **push knife** vs 19-gauge needle
- 12% new push knife ; **A2 pulley injury**
- 0% 19-gauge needle



# Discussion

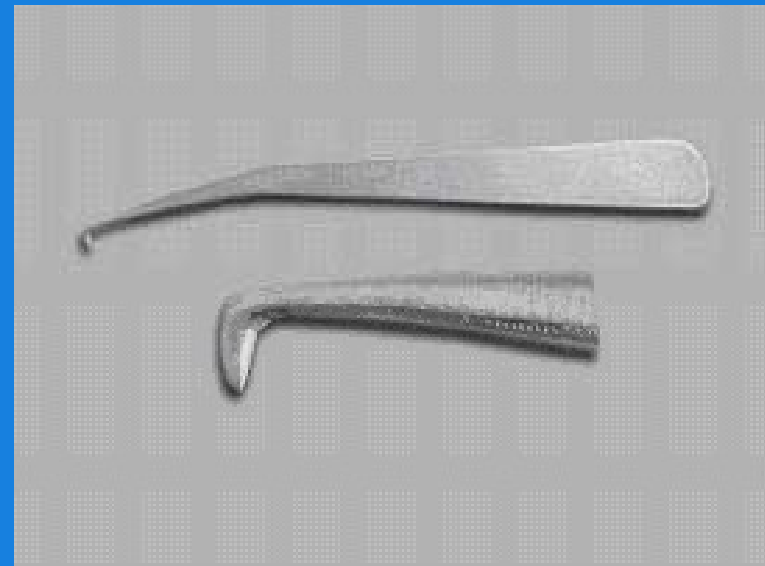
## Current study

- All A1 pulley were released by KS-1 instrument
- **93.1%** short term good result
- No Tendon, digital nerve, A2 pulley injury



# Conclusion

- Percutaneous trigger finger release using **Korat-Satja1** is a easy, safe and effective procedure with a low rate of complications.





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Thank you for your attention

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