

Original Article

Short term outcome of open *versus* percutaneous release of trigger finger in eastern India population — A randomized controlled study

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Trigger finger is common condition affecting mainly female population resulting in difficulty in performing day to day activities. We have compared two options, open versus percutaneous release of trigger finger in our Institution. In short term basis percutaneous group showed better outcome than open group but long term outcome was same in both groups.

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Key words : Trigger finger, open *versus* percutaneous release.

Trigger finger is a condition which occurs when the gliding movement of the tendon is blocked by the osteofibrous canal at A1 pulley¹. It is seen more frequently in female, diabetic population, in 5th-6th decade. Diagnosis is usually straightforward and patient typically complains of lump or knot in the palm, inability to extend digits, pain, triggering. There are various treatment options^{2,3}. We can go for conservative trial, corticosteroid injection, surgical release. Surgical release has been shown to be the best treatment and both open and percutaneous release has excellent treatment outcomes². Although both the procedures have their own drawbacks. The aim of our study is to compare the results of open versus percutaneous release of trigger finger in eastern India population⁴.

MATERIAL AND METHODS

Informed consent of surgery was obtained from all patients before surgery. All the patients were selected from OPD. Total 40 patients were selected. Among them 23 female and 17 male. There were few inclusion and exclusion criteria to select the patients for study and the patients were divided in two groups (open [n=20]) and (percutaneous [n=20]).

Pre operative grading :- Froimson grading (1999)

- Grade I:-Pre triggering pain, tenderness over A1 pulley
- Grade II:-triggering, active. Can extend finger actively.
- Grade III :-triggering, requires passive extension. Unable to flex.
- Grade IV :-contracture, fixed flexion contracture (PIP joint).

Inclusion and exclusion criteria :

Inclusion criteria's were

1. Failure of steroid injection.
2. Two Gr II or Gr III patients.
3. Three Triggering for at least 3 months.

Exclusion criteria's were

1. Recent trauma
2. Uncontrolled diabetes
3. Severe neurological deficits
4. Rheumatoid arthritis
5. Bony or soft tissue swelling.

Surgical techniques : Open release— LA, 2cm long incision is given distal to distal palmar crease. A1 pulley is incised longitudinally. Triggering checked, wound closed, compression bandage is given.

Percutaneous release — LA, 18 or 19 gauge needle is used. Orient the bevelled end of the needle longitudinally and needle is inserted in A1 pulley. With gradual stroke of the needle fibrous band is released. When the grating sensation is eliminated, check for triggering.

Postoperative assessment: - follow up done at 2 weeks, 4 weeks, 3 months.

Things noted:

- Post operative pain duration.
- Stitch site complication.
- Recovery of motor function.
- Any other complaint (related or not related to surgery)
- Proper rehabilitation protocol.
- Stiffness and ROM of finger movement.
- Any signs of relapse.

RESULTS

Both the groups were matched regarding demographic pattern, triggering and other factors. Mean age of both the group were identical. Duration of operation was higher in open group. Average return of motor function and average

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post op pain duration (approx 3 days) was higher in open group. 1 among the 20 patients had stitch site complication. In the follow up period we found that 2 patients got finger stiffness and 1 patient got stitch site infection. Whereas in percutaneous group relapse of triggering is there in 1 case which later managed by open release. Patient satisfaction rate is slightly higher in percutaneous group.

DISCUSSION

In this short term study we found that percutaneous release is an easy, less time consuming, cheap and good alternative to open trigger finger release⁴⁻⁸. Though the only limitation is relapse which is to be managed by open release later.

Limitations

- Small sample size.
- Short follow up period.
- Retrospective study. Chance of bias

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