

An Interventional Study to Determine Outcome of Lacertus Release Surgery in Lacertus Syndrome

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INTRODUCTION:

Traditional surgical release for proximal median nerve compression at forearm addressing all potential compression sites is linked to post-operative complications such as excessive scarring and pain. Therefore, it is essential to differentiate and specifically define compression attributed to the lacertus fibrosus. Therefore, this study was done to assess the outcomes of lacertus release in patients that clinically diagnosed with lacertus syndrome.

METHODS:

A prospective interventional study from December 2021 until June 2023 was conducted at Hospital Canselor Tuanku Muhriz (HCTM) to assess the outcome of lacertus release surgery in patients who was clinically diagnosed with lacertus syndrome. Outcome assessment include Visual Analog Scale (VAS), Quick Disabilities of Arm, Shoulder and Hand Score (QuickDASH Score), grip strength and pinch strength were collected pre-surgery, 6-weeks, 3-months weeks, and 6 months post-surgery.

RESULTS:

A total of 8 female patients were participated in this study. There is statistically significant correlation between pre-operative scores and post-operative scores (at 3 weeks, 6 weeks, and 6 months) for VAS, QuickDASH, and grip strength ($p < 0.05$). However, pinch strength score was improved but not significantly significant ($p > 0.05$).

Table 1 showing comparison between VAS, QuickDASH, grip and pinch strength pre-operatively and 6 months post-operatively

Score	Pre-op (mean± SD)	6 months post-op (mean± SD)	p- value
VAS	7.25± 1.982	0.88± 0.991	<0.001
QuickDASH	40.61± 11.54	13.01± 18.535	0.010
Grip Strength	12.03± 4.542	18.13± 4.612	0.016
Pinch Strength	4.94± 1.400	6.63± 1.458	0.081

DISCUSSIONS:

The results of the study showed that after surgery, patients experienced less pain, improved hand function, and increased grip strength compared to before the operation. While pinch strength also improved, it wasn't a significant change. These findings match what other studies have found. For instance, one study by Hagert et al. found that after lacertus release surgery, patients' pain scores dropped significantly.¹ Another study by Ahmad et al. found similar improvements in hand function and grip strength after surgery.²

CONCLUSION:

Lacertus release surgery demonstrates effectiveness in relieving symptoms and improving functional outcomes. The significant reductions in pain scores, improvements of QuickDASH score and increased grip strength underscore the favorable outcomes of the surgery for the majority of patients.

REFERENCES:

- Hagert E et. al. International Orthopaedics 2023; 47(4).
- Ahmad et. al. Journal of Hand Surgery 2023; 5(4):498-502.