



Aesthetic Evaluation of Surgical incisions in the Treatment of Trigger Fingers: The Patient and Surgeon Perspective



Logan Morin B.S., Mada Hamwi B.S., Michael VonBorstel B.A., Andre Ivy M.D.

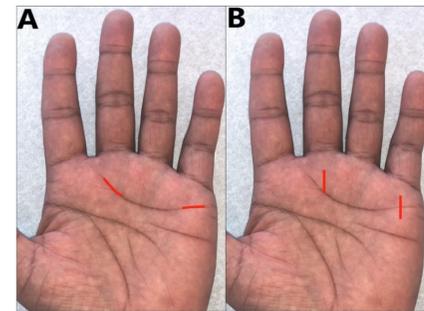
Midwestern University-CCOM, DuPage Medical Group

Introduction

Stenosing Tenosynovitis, also known as trigger finger, is a common condition in the general population. Surgical release is most commonly performed via an oblique or longitudinal incision overlying the A1 pulley. There have been several investigations seeking to prove the superiority of one approach over another, however recent studies have found that both longitudinal and oblique incisions have similar functional outcomes, safety profiles, and scar quality. We evaluate the patient and surgeon aesthetic preference regarding longitudinal or oblique incisions for the surgical treatment of trigger fingers in digits 2-5.

Objectives

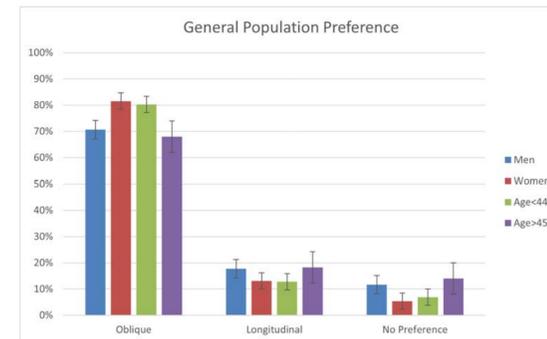
- 1.) Establish a clear patient preference for curved or longitudinal incisions in the surgical treatment of trigger fingers.
- 2.) Establish which incision pattern is most frequently used amongst surgeons.
- 3.) Understand reasoning behind surgical incision choice amongst surgeons.
- 4.) Assess willingness and barriers to changing surgical approach for the management of Trigger Fingers.



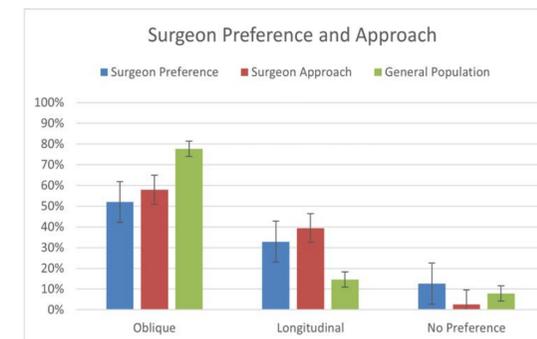
Methods

423 patients and 38 fellowship-trained hand surgeons were queried via an online survey, shown sequential pairs of stylized hands (eft), and asked to indicate a preference. Individuals who had undergone a trigger release were then asked to indicate the incision pattern that their surgeon had used. Surgeons were additionally queried regarding their customary incision, reasons for use, and willingness to change based on patient preference. Demographic information was collected at the end.

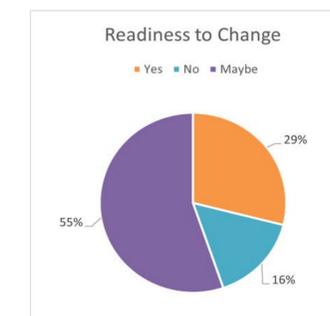
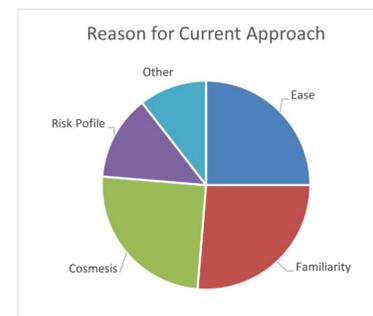
Results



The majority of patients preferred oblique incisions (75%) vs longitudinal incisions (14%). 11% indicated no preference. Preference decreased with age. More females than males expressed a preference for oblique. Respondents of different ethnicities showed non-significant variations in preference. In respondents who had prior surgery, 78% of oblique recipients chose the oblique incision option whereas only 52% of longitudinal recipients chose the longitudinal incision option.



The majority of surgeons preferred oblique incisions (52%) vs longitudinal incisions (33%) on themselves. 15% indicated no preference. 58% of surgeons were oblique users and 40% of surgeons were longitudinal-users. 76% of oblique-users preferred oblique incisions on themselves, while only 63% of longitudinal-users preferred longitudinal incisions on themselves.



Conclusion

The majority of patients and surgeons prefer oblique incisions placed in or near the distal palmar crease. Without sufficient evidence to support superior outcomes of longitudinal incisions, the aesthetics and preference of the oblique incision should be taken into consideration.

References

- 1.) Kazmers NH, Holt D, Tyser AR, Wang A, Hutchinson DT. A prospective, randomized clinical trial of transverse versus longitudinal incisions for trigger finger release. *J Hand Surg Eur Vol.* 2019 Oct;44(8):810-815. doi: 10.1177/1753193419859375. Epub 2019 Jul 4. PMID: 31272265.
- 2.) Kloeters O, Ulrich DJ, Bloemsma G, van Houdt CI. Comparison of three different incision techniques in A1 pulley release on scar tissue formation and postoperative rehabilitation. *Arch Orthop Trauma Surg.* 2016;136(5):731-737. doi:10.1007/s00402-016-2430-z
- 3.) Trigger finger. (2020, August 31). Retrieved May 03, 2021, from <https://www.melbournehandtherapy.com.au/conditions-treated/trigger-finger/>

Contact Information

Logan A Morin B.S.
lmorin62@midwestern.edu
Andre Ivy M.D.
Andre.ivy@hotmail.com