

Comparison of Cosmesis and Cost with Absorbable Versus Non-Absorbable Closure in Minor Hand Surgery

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Introduction

- Carpal tunnel syndrome and stenosing tenosynovitis affect 10% and 2% of the US population, respectively
- Significant anxiety exists with regard to pain and suture removal at follow up
- Absorbable suture has become increasingly popular
- No studies exist comparing closure methods in both carpal tunnel release (CTR) and trigger finger release (TFR)
- Benefits of absorbable suture versus needing to remove sutures in clinic may include: time savings, increased patient satisfaction and nursing satisfaction

Methods

- 150 patients prospectively, and non-randomly enrolled in two cohort study
- Monocryl® suture (Group I)
- Ethilon® suture (Group II)
- CTR (Sub-Group A)
- TFR (Sub-Group B)
- Outcomes measured:
 - Cosmesis
 - Time in OR and clinic
 - Cost of suture
 - Nursing satisfaction

Results

- There was a significant time savings in clinic when removing sutures between Groups I vs II (mean difference = 11.98 s; $p < 0.001$)
- Cost between groups I and II was comparable at \$4.58 vs \$3.00, respectively
- Subjective nursing satisfaction was higher in the absorbable suture group vs the non-absorbable suture group at follow up

Table 1: Stony Brook Scar Evaluation Scale

Column1	Scar Category	Points
Width	> 2 mm	0
	≤ 2	1
Height	Elevated/depressed	0
	Flat	1
Color	Darker than surrounding skin	0
	Same color or lighter than surrounding skin	1
Hatch/suture marks	Present	0
	Absent	1
Overall appearance	Poor	0
	Good	1

Results

- 150 patients included
- Minimum of 1 post op visit
- Average age = 59.3
- Stony Brook Scar Evaluation Scale between groups IA vs IB or IIA vs IIB was not different
- No difference in OR times

Conclusion

- Absorbable suture is cost-effective without compromising cosmetic outcome in minor hand surgery
- The use of absorbable suture offers a significant time savings in clinic improving clinic work flow
- Nursing satisfaction with absorbable suture is higher, improving their mood and, as a result, the clinic environment
- In appropriate patients, we would recommend the use of an absorbable suture for wound closure in minor hand surgery such as CTR and TFR