

A Descriptive Study of Pediatric Trigger Finger at the Children’s Hospital of the King’s Daughters: 2012-2022

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Background

- Trigger finger occurs in 3 in 1000 children, typically between the ages of 1 to 4.¹
- If untreated, patients may experience extensive pain, loss of function, and physical deformity.²
- Most cases appear are idiopathic; however, some cases are linked to other underlying medical conditions.²
- Goal: To better understand the patient population, identify possible predictive factors, and analyze treatment outcomes.

Methods

- Single institution retrospective chart review for patients receiving treatment from 2012 – 2022.
- Patients ≤18 years old were included.
- Patients were collected using ICD-10-CM codes M65.30 (acquired) and Q74.0 (congenital) and ICD-9 codes 727.03 (acquired) and 756.89 (congenital).

References

1)

The Children's Hospital of Philadelphia. (2016, June 2). *Trigger finger and trigger thumb*. Children's Hospital of Philadelphia. Retrieved December 12, 2022, from <https://www.chop.edu/conditions-diseases/trigger-finger-and-trigger-thumb>

2)

Prock-Gibbs, H., Marshall, B. J., & Werntz, J. R. (2022). Pediatric Trigger Digits. *Pediatrics in review*, 43(4), 191–197. <https://doi.org/10.1542/pir.2020-000331>

3)

American Society of Surgery for the Hand. (2020). *Trigger finger: What is trigger finger?* Trigger Finger. Retrieved December 12, 2022, from <https://www.assh.org/handcare/condition/trigger-finger>

Results

Figure 1: Demographic and Post-Intervention Outcomes		
Demographics		
Sex:		
Female	161	51%
Male	154	49%
Race:		
Black	71	23%
White	213	68%
Native Am	4	1%
Hispanic	9	3%
Did not disclose	5	2%
Asian	13	4%
Family History of Related Conditions:		
Trigger finger	20	6%
Musculoskeletal anomalies	16	5%
Mucopolysaccharide or Lysosomal Disorders	0	0%
Central Nervous System Disorders	4	1%
Juvenile Rheumatoid Arthritis	0	0%
Affected Digit		
Right hand:		
Thumb	183	46%
Index	5	1%
Long	9	2%
Ring	3	1%
Small	3	1%
Left hand:		
Thumb	169	42%
Index	10	3%
Long	4	1%
Ring	7	2%
Small	7	2%
Total Digits:	400	
Interventional Data		
Functional Status	Following Surgery	Following Conservative Mangement
Good	83%	32%
Limited	9%	14%
No improvement	1%	4%
Lost to follow-up	6%	50%

Key Facts

- In total, 315 patients were included
- Average age of diagnosis: 3.2 years
- Cases requiring surgery: 239
- Cases undergoing surgery: 237
- Cases requiring two surgeries: 7
- Cases requiring three or more surgeries: 0
- Post-operative infections: 9
- Conservative therapy only: 76

Figure 2. Characteristics of Affected Digits	
Thumb only	267
Finger only	26
Thumb + Finger	5
Bilateral	65
Multiple Digits	230

Conclusions

- Management varies based upon severity, age, and patient/family preference.
- High surgical success rate with 83% good functional status post-operatively and only a 3% reoperation rate.
- Conservative therapy outcome likely grossly underestimated due to large number lost to follow-up.
- No significant identifiable causes were identified.