Evaluation of Cost and Parental Satisfaction in Type B Polydactyly Excision Completed in Office Vs. Operating Room

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Background/Objective:
One in 500 children in the US are born with polydactyly, extra digits on hands or feet. Out of those children, 95% of cases comprise of type B polydactyly, in which the extra digit is attached by neurovascular bundle without bones. Surgeries to remove type B polydactylies by excision have been traditionally performed in operating rooms. Even though operating room surgeries are successful, they can be expensive and time consuming. In contrast, the surgeries performed in physician's office, while non-traditional, can minimize expenses and save time and effort. We hypothesize that excisions conducted in offices are safe alternatives to operating room excision and are associated with definitive financial savings for patients' families and hospitals, while increasing satisfaction of parents.

Methods:
Using CPT codes and reviewing electronic medical records, we identified all patients from 2019 to 2022 who had been treated for Type B Polydactyly with either office procedures or OR procedures, all of which had been performed at Riley Children's Hospital. Patient billing data were obtained from Indiana University Hospital billing department. Average charge to patients for total cost of procedure and estimated removal of one digit were analyzed and compared. A 9-question parental satisfaction questionnaire was administered to patient's parents over phone call.

Results:
Thus far, out of 93 patients who underwent type B polydactyly removal, 36 patients received procedures in physician's offices, and 57 patients received procedures in ORs. Average charge to patients per digit removed for in-office group was around $500 cheaper than that of OR group. Average total charge to patients for in-office group was around $600 cheaper than that of OR group. Parental satisfaction data are pending.

Conclusion and Potential Impact:
This study shows the cost effectiveness of type B polydactyly excision in office. With analysis of future satisfaction survey data, we hope to gauge parental satisfaction associated with in-office excisions and promote in-office excisions as effective alternative to OR excisions.