CHRD 2022: Abstract & Poster Submission Form

Submitter Name
Yael Ripstein

Submitter Email
ripsteiy@myumanitoba.ca

Presenter Status
- ◉ Undergraduate Students
- ○ Masters Student
- ○ PhD Student
- ○ Post-Doctoral Fellows
- ○ Residents
- ○ Non-Trainee

Research Category
- ○ Basic Science
- ◉ Clinical
- ○ Community Health / Policy

Role in the project
- ☑ Design
- ☑ Perform Experiments
- ☑ Analyze Data
- ☑ Write Abstract
- ☐

Title
Developmental outcomes of a cohort of preschool children requiring craniosynostosis surgery in Manitoba

Background

Historically, the practice in Manitoba was referral of all children with craniosynostosis to the Child Development Clinic (CDC) for neurodevelopmental evaluation. Due to a significant increase in referral volume and wait times, the CDC recently decided to limit the number of referrals accepted for craniosynostosis.

Objective

This study then aims to describe the developmental outcomes of preschool children requiring craniosynostosis surgery in Manitoba who were assessed prior to the implementation of this limitation to inform best practices for neurodevelopmental evaluation in this population.

Methods

In this historical chart review of the CDC electronic medical record, the developmental outcomes of children who were assessed at CDC for surgically managed craniosynostosis between July 1st, 2016 and December 1st, 2021 were described. Developmental quotients across Motor, Cognitive and Language domains were collected, and patients were categorized as Normal, Mild Delay in 1 Area, or Delay in ≥2 Areas. Demographic and medical characteristics were collected, and descriptive statistics were used to describe and compare outcomes between groups.

Results

Out of a total of 67 children, 18% (n=12) demonstrated developmental delays in ≥2 areas, 23.9% (n=16) demonstrated mild developmental delays in one area, and 58.2% (n=39) were developmentally appropriate across all areas. Presence of genetic syndrome ($p<0.001$), suture type ($p=0.011$), and parental SES score ($p=0.028$) were significantly associated with developmental delay in ≥2 areas. Odds Ratios for genetic syndrome and SES score were 218.35 (95% CI 6.84, 6967.77) and 0.86 (95%CI 0.77, 0.96) respectively.

Conclusion

To target children at highest risk for developmental delay, we suggest that children with craniosynostosis be referred for neurodevelopmental evaluation if they have multisutural craniosynostosis, suspicion or confirmed genetic syndrome or an identified developmental concern by primary care physician screening.

Do you have a table/figure to upload?
○ Yes ⊙ No

Authors

- For each author, please click "**[+] Add Item**" and provide the author's information

Name	Email	Role	Profession
Yael Ripstein	ripsteiy@myumanitoba.ca	Presenting Author	Other
M. Florencia Ricci	fricci@rccinc.ca	Co Author	Assistant Professor

Christy Pylypjuk	cpylypjuk@hsc.mb.ca	Co Author	Assistant Professor