ABSTRACT SUBMISSION FORM

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SEX + GENDER

Exploring the role of sex and gender on health research

CHILD HEALTH RESEARCH DAYS

CHRD 2020: Abstract Submission Form

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Title
The Next Generation Birth Cohort: Screening for Dysglycemia and Albuminuria in High Risk Children

Background
Youth onset type 2 diabetes (T2D) is increasing worldwide. The prevalence of dysglycemia and microalbuminuria prior to diagnosis remains unclear.

Objective
This project examined the presence of dysglycemia and albuminuria prior to diagnosis in youth with T2D and compared rates of albuminuria in youth onset T2D compared to normoglycemic youth.

Methods
A sub-analysis of data from a prospective cohort of children at risk of T2D (The Next Generation birth cohort) was performed. All children had a biennial orange glucose tolerance test (OGTT) starting at age 7 and annual albumin-creatinine ratio at 12 months. We looked at a 3-year period prior to diagnosis for youth developing T2D and normoglycemic youth matched for age. Descriptive analysis included proportions, means and medians.

Results
Of the 118 participants (11.2 ± 2.7 years, 100% First Nations, 51% female, 39% T2D), 22% of children with T2D had microalbuminuria at diagnosis compared to the 7% of normoglycemic children. Only one participant had microalbuminuria prior to diagnosis. Participants who had albuminuria at diagnosis had a fasting blood glucose (BG) of 14 mmol/L, 2-hour post 75g OGTT BG of 18.85 mmol/L and A1C of 9.23%. None of the children who developed T2D had impaired glucose tolerance or impaired fasting glycemia detected on biennial OGTT in the 3 years prior to diagnosis.

Conclusion
Although the children appear to be at greater risk of diabetes related complications, unlike adults, children are diagnosed without a significant period of preceding dysglycemia. In addition, almost a quarter of the

children develop albuminuria co-incident with diabetes onset.

Theme:
Clinical

Do you have a table/figure to upload?
No

Are you willing to participate in Goodbear's Den?
No

Presenter Status:
Non-Trainee

What was your role in the project?
Write Abstract

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