



063: Use of GLP-1 agonists and associated outcomes in adults with 22q11.2 deletion syndrome

Samantha D'Arcy¹, Tracy Heung^{1,3}, Lisa Palmer¹, Nikolai Reyes^{1,2,3,4}, and Anne S. Bassett^{1,2,3,5}

¹Dalglish Family 22q Clinic, Toronto General Hospital, Toronto, ON, Canada; ²Institute of Medical Science, Temerty Faculty of Medicine, University of Toronto, Toronto, ON, Canada; ³Clinical Genetics Research Program, Centre for Addiction & Mental Health, Toronto, ON, Canada; ⁴Edmond J. Safra Program in Parkinson's Disease, the Rossy Progressive Supranuclear Palsy Centre, and the Morton and Gloria Shulman Movement Disorders Clinic, Toronto Western Hospital, Toronto, ON, Canada; ⁵Department of Psychiatry, University of Toronto, Toronto General Hospital Research Institute, and Campbell Family Mental Health Research Institute, Toronto, ON, Canada.

Background: Obesity is a common metabolic feature of 22q11.2 Deletion Syndrome (22q) that can lead to reduced quality of life. As the use of GLP-1 agonists (GLP1) for weight loss has increased in recent years, many people with 22q are using this treatment to manage their weight as well as hyperglycemia. **Methods:** In adults with 22q known to be taking GLP1, we collected information on the type of GLP1 used, administration and dosage. Weight and hemoglobin A1c values were collected over time, pre and post initiation of treatment, as part of regular clinical assessment. We also collected qualitative data regarding tolerance of GLP1 and discontinuation of treatment. **Results:** Of the 18 adults (5 female; median age = 34) with 22q taking GLP1, 83% were using weekly semaglutide injections, with doses ranging from 0.25 mg to 2.4 mg. 44% of individuals taking GLP1 had a history of metformin use, and 33% continued to use it during GLP1 treatment. Individuals experienced a mean 5.48% total body weight loss (range -12.66% - +2.95%), Regarding hemoglobin A1c, individuals saw a mean reduction of 0.5% (range -2.1 - +1.4). 5 individuals (28%) discontinued the medication due to adverse reactions or perceived lack of efficacy. **Conclusions:** Initial data suggests that GLP1 agonists may be a useful intervention for adults with 22q to manage metabolic conditions. Factors such as impulsivity and environmental barriers to healthy eating continue to be important influences on outcomes. Understanding weight trends specific to adults with 22q using GLP1 agonists are important as use of these medications continues to grow, to give people more accurate information with which to make decisions regarding their medical care.