

Study shows diabetes treatment helps reduce weight in children with autism

August 24 2016



Credit: CC0 Public Domain

A new study shows significant evidence that a common drug used to treat type2 diabetes - metformin - is also effective in helping overweight children and adolescents with autism spectrum disorder (ASD) who take

antipsychotic medications maintain or reduce their body mass index (BMI).

"This is a very special group, as young people with ASD present with many unique challenges. By definition, they experience communication difficulties, and they're reported to have more gastrointestinal (GI) difficulties than most other patient groups," said Michael Aman, professor emeritus of psychology at The Ohio State University Wexner Medical Center's Nisonger Center and lead investigator at Ohio State.

Results of the 16-week, multicenter clinical trial, which also showed metformin was well tolerated and reduced BMI scores from the initial baseline significantly more than the placebo group, are published in the *Journal of the American Medical Association Psychiatry*.

"It's critically important that we investigate new ways to support healthy outcomes as early as possible for those who are on these medications," said Dr. Evdokia Anagnostou, principal investigator of the study and senior clinician scientist and colead of Holland Bloorview Kids Rehabilitation Hospital's Autism Research Centre.

The double blind, randomized clinical trial observed outcomes of 60 adolescents and children (ages 6-17) with ASD who were overweight due to side effects of FDA-approved [antipsychotic medications](#) prescribed to treat irritability and agitation. Such medications can cause a significant increase in [weight gain](#) and BMI, which increases long term risk of diabetes. Researchers explored the effectiveness of metformin in counteracting weight gain associated with antipsychotics.

"Use of antipsychotics to help manage irritability associated with ASD can sometimes be longterm, which means we need to provide families with solutions that support lasting optimal health in their children,"

Anagnostou said. "Our results showed that GI side effects occurred for more days in the metformin group compared to placebo group, but the large majority of children taking metformin were able to maintain their treatment. Importantly, the [metformin](#) didn't cause behavioral changes, such as increased irritability," Aman said.

ASD is a common developmental disorder of childhood which has markedly grown in frequency in recent decades, and data shows adolescents with ASD are more likely to be overweight than those without developmental disabilities.

Researchers note that results from this study are promising in terms of weight management, as little research has examined treatment or prevention of weight gain in children and adolescents with ASD. In addition, food selection commonly associated with ASD adds to the challenge of weight management.

"It's not the amount that's eaten, rather the food choices that are a byproduct of the cravings and linked to weight gain," Aman said.

Other researchers involved in the study were from the University of Toronto, University of Pittsburgh, Vanderbilt University, Massachusetts General Hospital and Harvard Medical School.

More information: *JAMA Psychiatry*. Published online August 24, 2016. doi:10.1001/jamapsychiatry.2016.1232

JAMA Psychiatry. Published online August 24, 2016. doi:10.1001/jamapsychiatry.2016.1213

Provided by The Ohio State University

Citation: Study shows diabetes treatment helps reduce weight in children with autism (2016, August 24) retrieved 26 April 2024 from <https://medicalxpress.com/news/2016-08-diabetes-treatment-weight-children-autism.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.