

Cystic Fibrosis Research News

Title:

A Novel Guluronate Oligomer Improves Intestinal Transit and Survival in Cystic Fibrosis Mice

Authors:

Megan Vitko ^a, Dana M. Valerio ^b, Philip D. Rye ^c, Edvar Onsøyen ^c, Astrid H. Myrset ^c, Arne Dessen ^c, Mitchell L. Drumm ^{a,b}, Craig A. Hodges ^{a,b}

Affiliations:

^aDepartment of Genetics and Genome Sciences, Case Western Reserve University, United States

^bDepartment of Pediatrics, Case Western Reserve University, United States

^cAlgiPharma AS, Norway

What was your research question?

OligoG is a safe and novel drug that may reduce intestinal complications in cystic fibrosis (CF) patients. Does OligoG decrease intestinal issues in CF by reducing the amount of sticky mucus in the intestines?

Why is this important?

Intestinal complications are more common in CF patients. The excess sticky mucus that occurs in the intestines of CF patients leads to slower movement of intestinal contents, increased intestinal bacteria, increased inflammation and increased intestinal obstructions such as constipation. Common treatments for intestinal issues are enemas, laxatives and in rare cases surgery. More effective therapies are needed to treat and prevent these intestinal issues. OligoG may provide a new therapy option for CF intestinal complications.

What did you do?

CF mice show similar intestinal issues as those observed in CF patients. CF mice have an increased amount of sticky mucus in their intestines which leads to a slower movement of intestinal contents through the intestine and a high amount of intestinal obstructions. In this study, we treated CF mice with OligoG and observed the amount of intestinal mucus, the movement of intestinal contents and intestinal obstructions.



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What did you find?

CF mice treated with OligoG had a reduced amount of mucus in the intestines compared to non-treated CF mice. This reduced mucus resulted in the CF mice having normal movement of intestinal contents in the intestine and having less intestinal blockage over time.

What does this mean and reasons for caution?

This is the first study to show that OligoG improves CF intestinal symptoms. OligoG reduces the amount of sticky mucus in the CF intestine most likely by allowing for the mucus to unfold correctly and exit the intestine. This reduction in sticky mucus allows for normal movement of intestinal contents and fewer obstructions. Currently, it is not known whether OligoG can work on an existing intestinal blockage.

What's next?

Further studies need to be completed on how OligoG may improve other intestinal complications in CF utilizing the CF mouse model. If these additional studies show positive results, OligoG may be a promising therapy for intestinal complications in CF patients.

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