

Cystic Fibrosis Research News

Title:

Multicenter Prospective Study Showing a High Gastrointestinal Symptom Burden in Cystic Fibrosis Journal of Cystic Fibrosis (GALAXY)

Lay Title:

Gastrointestinal Symptom Burden in Cystic Fibrosis

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What was your research question?

The purpose of our multicenter study referred to as GALAXY was to find out how common various gastrointestinal (GI) symptoms are in people with cystic fibrosis (PwCF), and also to examine their severity and their effect on the health of both adults and children with CF.

Why is this important?

PwCF suffer from various GI symptoms which affect their quality of life. Knowing how widespread specific GI symptoms are in CF can help with finding better treatments for the disease.

What did you do?

We enrolled eligible participants aged 2 years over 26 CF centers in the USA with CF seen in pulmonary clinics and followed them for 4 weeks. We used three previously used GI-focused questionnaires from the general population of non-CF individuals and also asked them 4 other individual questions that the CF community and experts thought are relevant in PwCF. These scores were then analysed.

What did you find?

402 people (58% aged 18 years or over; 52% male) enrolled. The prevalence of **moderate to very severe** symptoms were as follows: straining (20.3%), fullness (18.3%), incomplete bowel movements (17.1%), bloating (16.4%), abdominal distension (16.4%), and abdominal pain (upper-5.1%, lower-7.5%). Some symptoms were more common in adults than in children: bloating (63.7% versus 27.3%), lower abdominal pain (39.8% versus 26.2%), stomach fullness (75.6% versus 56.2%), and abdominal distension (swelling) (60.2% versus 34.9%). Individuals of all groups were dissatisfied with their treatment regimens, people that used laxatives and proton pump inhibitors (medicines to reduce the amount of stomach acid made by glands in the lining of your stomach) for reflux disease had **higher** GI symptom scores than those not on these medications.

What does this mean and reasons for caution?

We were surprised that GI symptoms are common whether or not individuals are taking GI medications. Additionally, we were glad to see that performing these questionnaires via an electronic format was feasible in children aged 2 years and over. GI symptoms (upper and lower) are in fact common in PwCF and most pronounced in females and those aged 18 years or over. Bloating and distension are most common in adults followed by abdominal pain. In this large multicenter study we found GI symptoms to be common and easily recorded



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virtually via electronic methods. However, we acknowledge the findings need to be replicated and the electronic questionnaires still lack confirmation in CF.

What's next?

We hope that this study has led the way for future clinical trials which can help target the GI symptoms in PwCF and improve the burden that these symptoms cause. Our next study will focus on treatment of bloating and distension in CF as these were key highlighted symptoms and additionally the treatment and definition of constipation in CF.

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