Clinical Study Results

This summary reports the results of only one study. Researchers must look at the results of many types of studies to understand if a study medication works, how it works, and if it is safe to prescribe to patients. The results of this study might be different than the results of other studies that the researchers review

Sponsor: Pfizer Inc.

Medicine Studied: Etrasimod

Protocol Number: C5041009

Dates of Study: 15 December 2020 to 30 June 2023

Title of this Study: A study to learn about the effects and safety of etrasimod in patients with eosinophilic esophagitis

[A Phase 2 Randomized, Double Blind, Placebo Controlled Study to Assess the Safety and Efficacy of Etrasimod in Adult Subjects with Eosinophilic Esophagitis]

Date(s) of this Report: 25 January 2024

– Thank You –

If you participated in this study, Pfizer, the Sponsor, would like to thank you for your participation.

This summary will describe the study results. If you have any questions about the study or the results, please contact the doctor or staff at your study site.

Why was this study done?

What is eosinophilic esophagitis?

“Eosinophilic esophagitis” is a condition where a type of white blood cell, called an eosinophil, builds-up in the lining of the tube that goes from your mouth to your stomach (esophagus). Eosinophils are cells of the immune system responsible for fighting diseases, allergies, or infections. This condition is a reaction to foods, allergens, or “acid reflux” (burning feeling in the chest caused by stomach acid travelling up towards the throat). This can cause tissue damage which leads to “dysphagia” (difficulty swallowing), vomiting, stomach, or chest pain, and may cause food getting stuck in the throat.

Current treatment options include diet, treatment with medicines or “esophageal dilation”. “Esophageal dilation” is a procedure to stretch or open the esophagus.

What is etrasimod?

Etrasimod is pronounced as ‘eh-TRAS-i-mod’. Etrasimod is given as a tablet that is swallowed. Researchers think it may help with the inflammation of the esophagus in patients with eosinophilic esophagitis.

What was the purpose of this study?

The purpose of the study was

- to find out if the treatment with etrasimod changed the number of eosinophils in the esophagus in adult participants with eosinophilic esophagitis
- to learn about the safety of etrasimod.

Researchers wanted to know:

What was the percentage change in the number of eosinophils in adult participants after taking etrasimod compared with placebo?

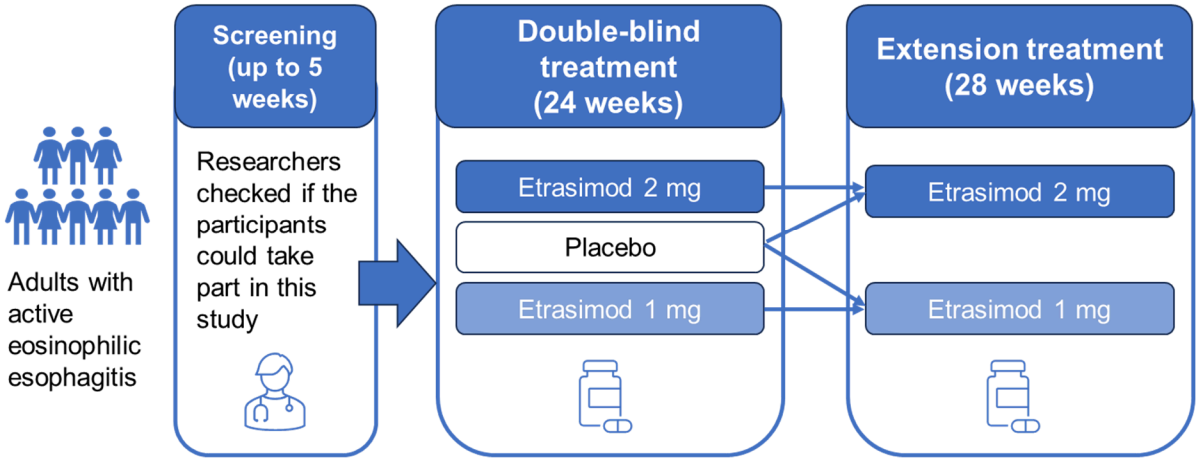
What happened during the study?

How was the study done?

This study was divided in 2 parts. Part 1 was the double-blind, placebo-controlled treatment period. Participants took one of 2 doses of etrasimod (2 mg or 1 mg) or placebo for 24 weeks. A placebo does not have any medicine in it, but it looks just like the study medication. The study participants and researchers did not know who took etrasimod and who took the placebo. This is known as a "blinded" study. Study participants were assigned to each group by chance alone. Researchers compared the results of study participants taking either dose of etrasimod to the results of study participants taking a placebo.

Part 2 was the extension treatment period. Participants who completed the double-blind treatment period could enter the extension treatment period. In this period, all participants took one of 2 doses of etrasimod (2 mg or 1 mg) for 28 weeks. Participants who took etrasimod (2 mg or 1 mg) in Part 1 took the same dose in the extension treatment period. Participants who took placebo in Part 1 took etrasimod 2 mg or 1 mg in the extension treatment period. (Figure 1)

Figure 1: What happened during the study



Where did this study take place?

The Sponsor ran this study at 64 locations in 7 countries in North America, Europe, and Asia Pacific.

When did this study take place?

It began on 15 December 2020 and ended on 30 June 2023.

Who participated in this study?

The study included participants who were aged between 18 and 65 years, and have active eosinophilic esophagitis.

- A total of 57 men participated
- A total of 51 women participated

Participants were to be treated for 24 weeks, in the double-blind treatment period. Of the 108 participants who started the study, 85 finished this treatment period and entered the extension treatment period. Seventy-one (71) out of the 85 participants who entered the extension treatment period finished it.

Twelve (12) participants in the double-blind period and 3 participants in the extension period left before the study was over by their choice which was the most common reason to stop treatment.

How long did the study last?

Study participants could be in the study for up to 61 weeks. Study participants received a study drug (etrasimod and/or placebo) in the study for up to 56 weeks.

When the study ended in June 2023 as planned, the Sponsor began reviewing the information collected. The Sponsor then created a report of the results. This is a summary of that report.

What were the results of the study?

What was the percentage change in the number of eosinophils in adult participants after taking etrasimod compared with placebo?

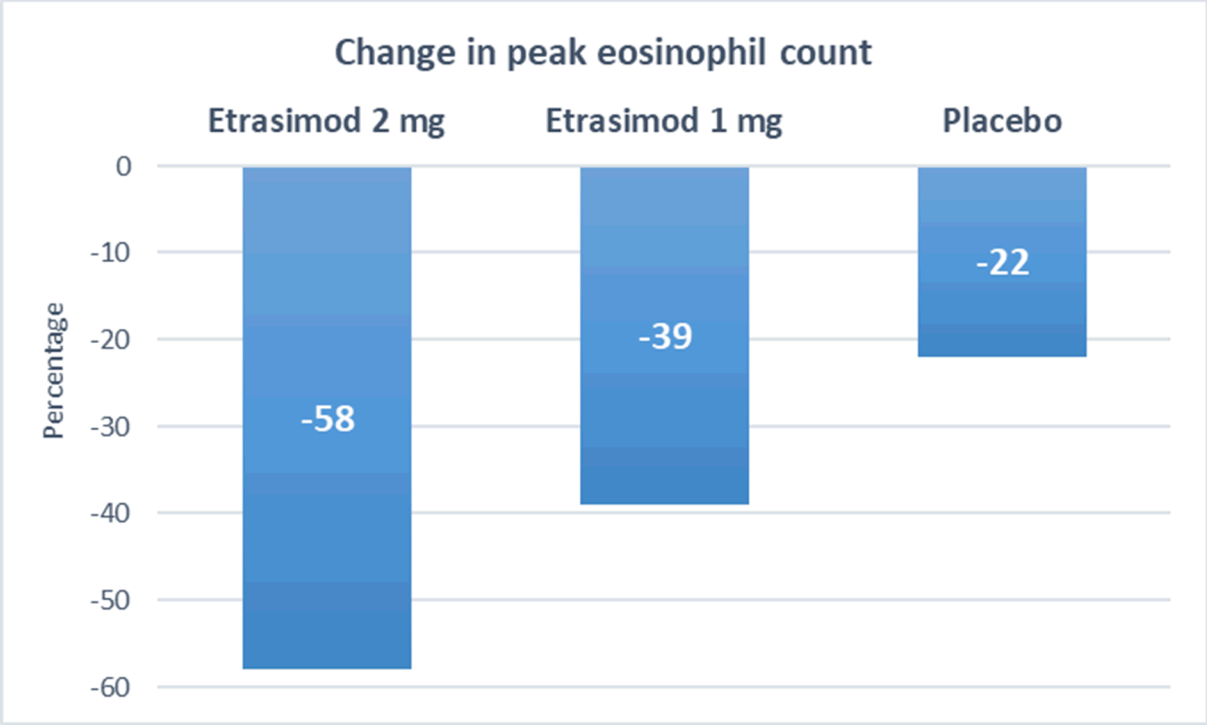
To answer this question, the researchers took small pieces of tissue removed ("biopsy") from the esophagus of the participants before and after taking etrasimod or placebo. The eosinophils in the biopsies were counted, and the change was compared between study start and after 16 weeks of treatment. They compared the percentage change in the number of eosinophils in participants given a different dose of etrasimod (2 mg or 1 mg) or placebo.

Did the study medication help the number of eosinophils to change compared to placebo?

On average, participants who took the etrasimod 2 mg had a bigger decrease from study start in the number of eosinophils compared to the

participants who took etrasimod 1 mg or placebo (Figure 2). The results are not likely the result of chance. This means that Etrasimod 2 mg may help the number of eosinophils to decrease.

Figure 2: Percentage change in the number of eosinophils in adult participants after taking Etrasimod 2 mg, 1 mg or placebo for 16 weeks



This does not mean that everyone in this study had these results. This is a summary of some of the main results of this study. Other studies may have different results.

What medical problems did participants have during the study?

The researchers recorded any medical problems the participants had during the study. Participants could have had medical problems for

reasons not related to the study (for example, caused by an underlying disease or by chance). Or, medical problems could also have been caused by a study treatment or by another medicine the participant was taking. Sometimes the cause of a medical problem is unknown. By comparing medical problems across many treatment groups in many studies, doctors try to understand what effects a study medication might have on a participant.

During the double-blind treatment period, seventy-seven (77) out of 108 [71%] participants in this study reported at least 1 medical problem. During the extension treatment period, 53 out of 85 [62%] participants reported at least 1 medical problem. Two (2) participants left the study because of medical problems. The most common medical problems – those reported by more than 10% of participants – are described below. (Table 1 and Table 2)

Below are instructions on how to read Table 1.

Instructions for Understanding Table 1.

- The **1st** column of Table 1 lists medical problems that were commonly reported during the study. All medical problems reported by more than 10% of participants are listed.
- The **2nd** column tells how many of the 41 participants taking etrasimod 2 mg reported each medical problem. Next to this number is the percentage of the 41 participants taking etrasimod 2 mg who reported the medical problem.
- The **3rd** column tells how many of the 39 participants taking etrasimod 1 mg reported each medical problem. Next to this number is the percentage of the 39 participants taking etrasimod 1 mg who reported the medical problem.

- The **4th** column tells how many of the 28 participants taking a placebo reported each medical problem. Next to this number is the percentage of the 28 participants taking a placebo who reported the medical problem.
- Using these instructions, you can see that 6 out of the 41 [15%] participants taking the etrasimod 2 mg reported feeling sick. A total of 3 out of the 39 participants [8%] participants taking the etrasimod 1 mg reported feeling sick. A total of 3 out of the 28 [11%] participants taking a placebo reported feeling sick.

Table 1. Commonly reported medical problems by study participants – double blind treatment period			
Medical Problem	**Etrasimod 2 mg (41 Participants)**	**Etrasimod 1 mg (39 Participants)**	**Placebo (28 Participants)**
Feeling sick	6 out of 41 participants (15%)	3 out of 39 participants (8%)	3 out of 28 participants (11%)
Feeling dizzy	4 out of 41 participants (10%)	4 out of 39 participants (10%)	1 out of 28 participants (4%)
COVID-19	3 out of 41 participants (7%)	4 out of 39 participants (10%)	5 out of 28 participants (18%)
Food getting stuck in the throat	1 out of 41 participants (2%)	1 out of 39 participants (3%)	5 out of 28 participants (18%)
Inflammatory condition of the esophagus	0	1 out of 39 participants (3%)	3 out of 28 participants (11%)

Table 2. Commonly reported medical problems by study participants – extension treatment period				
Medical Problem	**Etrasimod* 2 mg-2 mg (30 Participants)**	**Etrasimod* 1 mg-1 mg (31 Participants)**	**Placebo-Etrasimod 2 mg** (12 Participants)**	**Placebo-Etrasimod 1 mg** (12 Participants)**
Increased liver enzyme in blood (alanine aminotransferase)	4 out of 30 participants (13%)	0	0	2 out of 12 participants (17%)
COVID-19	2 out of 30 participants (7%)	5 out of 31 participants (16%)	1 out of 12 participants (8%)	1 out of 12 participants (8%)
Headache	1 out of 30 participants (3%)	1 out of 31 participants (3%)	2 out of 12 participants (17%)	0
Food getting stuck in the throat	0	1 out of 31 participants (3%)	4 out of 12 participants (33%)	0
Part of stomach sliding up to the chest	0	0	0	2 out of 12 participants (17%)
Increased liver enzyme in blood (aspartate aminotransferase)	0	0	0	2 out of 12 participants (17%)

*Participants who received Etrasimod in the double-blind treatment period received the same dose in the extension treatment period.
**Participants who received placebo in the double-blind treatment period received Etrasimod 2 mg or 1 mg in the extension treatment period.

Did study participants have any serious medical problems?

A medical problem is considered “serious” when it is life-threatening, needs hospital care, or causes lasting problems.

No participants in etrasimod or placebo group had serious medical problems in the double-blind treatment period.

In the extension treatment period, 1 out of 12 [8%] participants in the placebo–etrasimod 1 mg group had 2 serious medical problems (fall and severe brain injury). The study doctor considered that these two medical problems were not related to etrasimod.

No participants died during the study.

Where can I learn more about this study?

If you have questions about the results of your study, please speak with the doctor or staff at your study site.

For more details on your study protocol, please visit:

www.pfizer.com/research/research_clinical_trials/trial_results	Use the protocol number C5041009

The full scientific report of this study is available online at:

www.clinicaltrials.gov	Use the study identifier **NCT04682639**
www.clinicaltrialsregister.eu	Use the study identifier 2020-003226-23

Please remember that researchers look at the results of many studies to find out which medicines can work and are safe for patients.

Again, if you participated in this study, **thank you** for volunteering. We do research to try to find the best ways to help patients, and you helped us to do that!