AstraZeneca

Clinical Study Results

Research Sponsor: AstraZeneca AB

Drug Studied: Acalabrutinib

Study Purpose: This study was done to learn more about how acalabrutinib acts in the blood and about its safety in patients with COVID-19 who need hospital care

Protocol Number: D822FC00005

Thank you

Thank you for taking part in the clinical study for the study drug acalabrutinib.

AstraZeneca AB sponsored this study and believes it is important to share the results. An independent non-profit organization called CISCRP helped prepare this summary of the study results for you.

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

Who took part in this study?

The researchers asked for the help of patients with COVID-19 who were already in the hospital.

The study included 9 patients in Brazil.

Why was the research needed?

Researchers are looking for a way to treat the coronavirus disease known as "COVID-19". Before a treatment can be approved for people to get, researchers do clinical studies to find out how safe it is and how it works.

COVID-19 is an infectious disease that can cause swelling in the airways and lungs. This can lead to lung damage, difficulty breathing, and other medical problems. If the swelling is severe, people who have COVID-19 may have a breathing tube inserted and may not be able to swallow a pill. They may also have increased stomach acid while they have a breathing tube in.

The study drug, acalabrutinib, is used to treat certain types of cancer. But in animal studies, researchers have found that acalabrutinib may also reduce swelling in the lungs. Based on the results from these animal studies, researchers thought that acalabrutinib might be able to decrease swelling in the lungs and airways in people who have COVID-19.

Acalabrutinib is already available as a capsule and tablet taken by mouth. Because patients who have COVID-19 may have a breathing tube inserted, it may be harder for them to swallow a capsule or tablet. In these cases, it may be helpful to give acalabrutinib by a "nasogastric tube", which is a tube that goes through the nose to the stomach.

Patients who have a breathing tube are often given antacids known as "proton pump inhibitors" to reduce stomach acid and prevent ulcers. Earlier studies in healthy people have shown that when there is less stomach acid, it is harder for acalabrutinib to get into the blood when given as a capsule.

The researchers in this study wanted to learn more about how acalabrutinib and its "metabolite" act in the blood when given by a nasogastric tube with a proton pump inhibitor in patients with COVID-19 who need hospital care. A metabolite is a substance that the body makes when it breaks down a drug. The body removes metabolites through fluids, such as urine or sweat.

What was the purpose of this study?

In this study, the researchers wanted to learn more about how acalabrutinib acts in the blood when given by a nasogastric tube with a proton pump inhibitor in patients with COVID-19 who need hospital care.

The main questions the researchers wanted to answer in this study were:

- How much of acalabrutinib and its metabolite got into the blood when given by a nasogastric tube?
- What signs and symptoms did the patients have during the study?
- What medical problems did the patients have during the study?

The answers to these questions are important to know before other studies can be done to find out if acalabrutinib helps improve the health of people who have COVID-19 and need hospital care.

What treatments did the patients get?

In this study, all of the patients got acalabrutinib, a proton pump inhibitor, and the standard of care for COVID-19. "Standard of care" means the treatment that the medical community thinks is appropriate and widely used for a condition.

This was an "open-label" study. This means the patients, researchers, study doctors, and other study staff knew what each patient was getting.

The patients got acalabrutinib as a liquid given by a nasogastric tube. They were planned to get acalabrutinib twice a day for a total of 14 days.

The patients were also planned to get a proton pump inhibitor at least 2 days before starting the acalabrutinib treatment. The study doctors decided the most appropriate dose and the best way to give the proton pump inhibitor for each patient.

What happened during this study?

The study started in September 2020 and ended early in November 2020.

This study ended early because of information available from other studies in patients with COVID-19. The information showed that acalabrutinib did not help the patients in other studies. Because the study ended early, some of the patients did not get all of their study treatment.

Before the patients got study treatment, the study doctors visited them in the hospital 1 time. This part of the study lasted for up to 3 days. At this visit, the study doctors made sure the patients could join the study. They also:

- did physical exams and asked about the patients' medications and any medical problems they were having
- did tests for COVID-19
- took blood and urine samples
- checked the patients' heart health using an electrocardiogram, also called an "ECG"
- checked the patients' lung health by looking at their oxygen use or need for a ventilator
- if needed, took videos of the patients' hearts and their heart chambers using a tool known as an echocardiogram
- if needed, took X-rays or CT scans of the patients' chests

The study doctors also did some of these tests and measurements throughout the study.

While the patients got study treatment, they were supposed to get their study treatment at the hospital for a total of 14 days, or until they were discharged from the hospital. Because the study ended early, some of the patients did not get all of their study treatment.

After the patients got study treatment, they visited their study doctors 3 times. If they had already left the hospital, the patients visited their study site. If the patients were still in the hospital, the study doctors visited them. This part of the study lasted for up to 17 days. At these visits, the study doctors checked the health of the patients.

What were the results of this study?

This is a summary of the main results from this study overall. The results each patient had might be different and are not in this summary.

Researchers look at the results of many studies to decide which treatments work best and are safest. Other studies may provide new information or different results. Always talk to a doctor before making any treatment changes.

The websites listed at the end of this summary may have more information about the study results.

How much of acalabrutinib and its metabolite got into the blood when given by a nasogastric tube?

To answer this question, the study doctors took blood samples from the patients throughout the study.

In these samples, the study doctors measured:

- the average total amount of acalabrutinib and its metabolite in the blood during the study
- the average highest amount of acalabrutinib and its metabolite in the blood during the study

Since the study ended early, the researchers could not tell if a nasogastric tube had an effect. But overall, the researchers found that both the average total amount and the average highest amount of acalabrutinib and its metabolite in the blood were similar to the results from previous studies of acalabrutinib. These previous studies included healthy people and patients with blood cancers.

What signs and symptoms did the patients have during this study?

To answer this question, the study doctors did tests and measurements before and after the patients got acalabrutinib.

The doctors did physical exams and tested the patients' blood and urine samples to check their overall health. They also did ECGs to check the patients' heart health and measured the lung function of the patients. Overall, the researchers found that there were some small changes in the results of these tests and measurements. But, the researchers did not consider these to be meaningful.

The study doctors also kept track of the "adverse events" that the patients had. An adverse event is any sign or symptom that patients have during a study. Doctors keep track of all the adverse events that happen in studies, even if they do not think the adverse events might be related to the study treatment.

The adverse events that the patients had during this study are not in this summary. Because there was a very small number of patients, leaving this information out helps protect their identities.

What medical problems happened during this study?

The medical problems patients have during clinical studies that the study doctors think might be related to the study treatment are called "adverse reactions". An adverse reaction is considered "serious" when it is life-threatening, causes lasting problems, or requires hospital care.

The adverse reactions that happen in a study may or may not be caused by the study treatment. A lot of research is needed to know whether a treatment causes an adverse reaction.

The medical problems that the patients had during this study are not in this summary. Because there was a very small number of patients, leaving this information out helps protect their identities.

How has this study helped patients and researchers?

This study helped researchers learn more about how acalabrutinib acts in the blood when given by a nasogastric tube with a proton pump inhibitor in patients with COVID-19 who need hospital care.

Researchers look at the results of many studies to decide which treatments work best and are safest. This summary shows only the main results from this one study. Other studies may provide new information or different results.

Further clinical studies with acalabrutinib for patients with COVID-19 are not planned.

Where can I learn more about this study?

You can find more information about this study on the websites listed below. If more information about the study results is available, it can also be found here.

- www.clinicaltrials.gov Once you are on the website, type **"NCT04497948"** into the search box and click **"Search"**.
- www.AstraZenecaClinicalTrials.com Once you are on the website, type **"D822FC00005"** into the search box, and click **"Find a Study"**.

Full Study Title: An Open-label, Multiple-dose Study to Evaluate the Pharmacokinetics, and Safety and Tolerability of Acalabrutinib Suspension Delivered via Nasogastric Tube, Coadministered With a Proton-pump Inhibitor, in Participants Hospitalized With COVID-19

AstraZeneca AB Protocol Number: D822FC00005

National Clinical Trials Number: NCT04497948

AstraZeneca AB sponsored this study and has its headquarters at Södertälje, Sweden.

The phone number for the AstraZeneca Information Center is +1-877-240-9479.

Thank you

Clinical study participants belong to a large community of people who take part in clinical research around the world. They help researchers answer important health questions and find medical treatments for patients.

CISCRP

The Center for Information & Study on Clinical Research Participation (CISCRP) is a non-profit organization focused on educating and informing the public about clinical research participation. CISCRP is not involved in recruiting participants for clinical studies, nor is it involved in conducting clinical studies.

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