Clinical Study Results

Research Sponsor: AstraZeneca AB

Drug Studied: Selumetinib (AZD6244)

Study Title: A study to learn how different forms of selumetinib work in the bodies of healthy participants

Thank you!

Thank you to the participants who took part in the clinical trial for the study drug selumetinib. You and all of the participants helped researchers learn more about how different forms of selumetinib are taken up by the body in healthy participants.

AstraZeneca AB sponsored this study and thinks it is important to share the results. An independent non-profit organization called CISCRP helped prepare this summary of the study results. We hope it helps the participants understand and feel proud of their important role in medical research.

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

What is happening with the study now?

The study started in August 2018 and ended in October 2018. The study included 24 participants in the United States.

The sponsor reviewed the data collected when the study ended and created a report of the results. This is a summary of that report.

Why was the research needed?

Researchers are looking for a different way to treat people who have neurofibromatosis type 1, also known as NF1. Before a drug can be approved for patients to take, researchers do clinical studies to find out how safe it is and how it works.

NF1 is a genetic condition that causes tumors to grow in nerves, which can lead to multiple health problems. How severe these health problems are can vary from person to person. The tumors found in patients who have NF1 are usually benign. Benign tumors do not spread to other parts of the body.

Selumetinib may help block the growth of some tumor cells. Selumetinib is given as a capsule. Researchers are looking for a way for young children and patients who are unable to swallow capsules to take selumetinib.

In this study, the researchers wanted to learn more about how different forms of selumetinib are processed by the body. The researchers compared a granule form of selumetinib to the capsule form of selumetinib. The granule form of selumetinib is a fine powder, like sugar, which dissolves in water.

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

- Was there a difference in how the two forms of selumetinib were taken up by the body?
- What medical problems did the participants have during the study?

The answers to these questions are important to know before other studies can be done that help to find out how the granule form of selumetinib works.

To answer the questions in this study, the researchers asked for the help of healthy men. The participants in this study were 23 to 44 years old when they joined.

What kind of study was this?

This was an “open-label” study. This means the researchers and the participant knew what the participant was taking.

This study had 2 parts, called Part 1 and Part 2. In Part 1, participants were not allowed to eat for 10 hours before the treatment and for 4 hours after treatment. In Part 2, participants were given a low-fat, low-calorie meal 30 minutes before the treatment. The participants took part in both parts of the study.

A computer program was used to randomly choose the order each participant got their treatments. This helps make sure the groups are chosen fairly. Researchers do this so that comparing the results of each treatment is as accurate as possible.

What happened during the study?

Before treatment, the doctors checked the overall health of the participants to make sure that they could join the study. The doctors took blood and urine samples from the participants. They also checked the heart health of the participants using an electrocardiogram, also known as ECG.

During treatment, the participants visited the study site 4 times. At each site visit participants stayed in the study center from the day before the treatment until 2 days after. Participants left the study center on the morning of day 3. The health of participants was checked again and blood samples were taken to measure levels of the drug in their body.

All participants took part in all 4 treatment periods where they took selumetinib either as a capsule or as a granule, but in different orders. Treatments were measured in milligrams, also known as mg.

In each of the 4 treatment periods during the study, participants received either:

- 25 mg, as a granule, without food
- 50 mg, as a capsule, without food
- 25 mg granule, with food
- 50 mg capsule, with food

All participants also took a single dose of acetaminophen with each dose of selumetinib. Acetaminophen is a drug usually used to treat pain. But, in this study it helped researchers measure how much selumetinib was taken up by the body.

All participants completed Part 1 of the study before Part 2. In Part 1, selumetinib was taken without food. In Part 2, selumetinib was taken with food.

After treatment, the participants visited their study site 1 time. At this visit, the doctors checked the overall health of the participants.

What were the results of the study?

This is a summary of the main results from this study overall. The results each participant 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 change.

The website listed at the end of this summary may have a full report of the study results if one is available.

Was there a difference in how the two forms of selumetinib were taken up by the body?

To answer this question, the researchers measured the levels of selumetinib in the blood of participants who took the granule and capsule forms of selumetinib.

Overall, the absorption of selumetinib into the body was faster for both the capsule and the granule form when participants had not eaten before taking the study drug, compared with when participants had eaten before taking the drug. In the same amount of time, 34.6% less of the granule form of selumetinib was taken up by the body compared with the capsule form.

In Part 1 of the study, when participants had not eaten and took selumetinib, a slower absorption of the granule was observed compared with the capsule.

- The body took 34 minutes longer to absorb the granule form of selumetinib compared with the capsule form.

In Part 2 of the study, when participants had eaten a meal before taking selumetinib, both forms of the drug were shown to be absorbed more slowly by the body compared with not having eaten beforehand.

- The body took 54 minutes longer to absorb the capsule form of selumetinib and 78 minutes longer to absorb the granule form compared with not having eaten before.

What medical problems did the participants have during the study?

This section is a summary of the medical problems the participants had during the study that the study doctors thought might be related to the study drug.

These medical problems are called “adverse reactions”. An adverse reaction is considered “serious” when it is life-threatening, causes lasting problems, or requires hospital care.

These adverse reactions may or may not be caused by the study drug. A lot of research is needed to know whether a drug causes an adverse reaction.

The website listed at the end of this summary may have other information about adverse reactions or other medical problems that happened during this study.

How many participants had serious adverse reactions?

None of the participants had serious adverse reactions during the study.

None of the participants died during the study.

How many participants had adverse reactions?

When participants took the granule form of selumetinib there were 8.3% of participants who had adverse reactions during the study. This was 2 out of 24 participants. Both patients had the adverse reaction of dry eyes. The study doctors thought that this adverse reaction was related to the study drug.

How has this study helped patients and researchers?

This study helped researchers learn how different forms of selumetinib are taken up by the body in healthy men.

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 selumetinib are planned.

Where can I learn more about this study?

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

- www.clinicaltrials.gov. Once you are on the website, type **"NCT03649165"** into the search box and click **"Search"**.

Full Trial Title: A Phase 1, Open-label, Single-center Relative Bioavailability and Food Effect Randomized Crossover Study of New Granule and Capsule Formulations of Selumetinib (AZD6244) in Healthy Male Subjects

AstraZeneca Protocol Number: D1532C00089

AstraZeneca AB sponsored this study and has its headquarters at 151 85 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 participants.