CLINICAL STUDY RESULTS

A study to learn how phenytoin and itraconazole affect the amount of fidrisertib in the blood of healthy adults

Overall, the results suggest that both phenytoin and itraconazole have an effect on the amount of fidrisertib in the blood. The results shown in this summary represent one clinical study in healthy adults. Other clinical studies may produce different results.

This lay summary was created by Ipsen with the assistance of a third-party writing service provider

CLIN-60130-454
November 2025

What was the study about?

Fidrisertib (also known as IPN60130) is being developed as a treatment for fibrodysplasia ossificans progressiva (FOP).

FOP is a very rare condition in which bone grows in places where it does not normally exist, such as muscles and tissues that hold muscles and bones together (tendons and ligaments). This new bone can cause loss of movement.

Palovarotene is an approved drug for patients with FOP above 8 to 10 years of age. However, as FOP starts to affect the body from early childhood, there is a need for new treatments.

Fidrisertib is expected to act on the abnormal protein that causes extra bone growth in patients with FOP.

CYP3A4 is a protein in the body that helps break down fidrisertib. If drugs that increase CYP3A4 activity, such as phenytoin, are given with fidrisertib, this could lead to a decrease in the amount of fidrisertib in the blood. This is because more fidrisertib gets broken down. Similarly, drugs that decrease CYP3A4 activity, such as itraconazole, could lead to an increase in the amount of fidrisertib in the blood.

Therefore, researchers wanted to know how the amount of fidrisertib in the blood changes when it is given with drugs that affect CYP3A4 activity.

The aim of this study was to learn how the highest and the total amount of fidrisertib in the blood change when taken with phenytoin or itraconazole, compared with when taken alone.

This study did not test if fidrisertib helps improve FOP.

The study took place between March 2023 and May 2023 at a single study site in the United States.

Who took part in this study?

32
PARTICIPANTS

22
MEN

10
WOMEN

40 YEARS
AVERAGE AGE

To take part in the study, participants had to:

- be aged between 18 and 55 years,
- be healthy, as assessed by the study doctors,
- weigh at least 50 kilograms (kg), and
- have a body mass index (BMI), a measure of body fat based on height and weight between 18 and 30 kg per square meter (kg/m^2).

Participants could not take part in the study if:

- they had health conditions or had received treatments that could affect the result of the study.

What treatments were used in this study?

Study drug	Drugs that may affect the amount of the study drug in the blood	
Fidrisertib	**Phenytoin**	**Itraconazole**
Fidrisertib was taken as capsules by mouth at a dose of 60 milligrams (mg) once on Day 1 and Day 15 (when taken with phenytoin), and on Day 1 and Day 10 (when taken with itraconazole).	Phenytoin was taken as capsules by mouth at a dose of 300 mg every morning from Day 5 to Day 18.	Itraconazole was taken as capsules by mouth at a dose of 200 mg every morning from Day 5 to Day 16.

This study had two parts:

Screening: The study doctor checked whether participants could take part in this study within 42 days before they started the study treatment.

Treatment: 32 participants were divided into 2 groups. Each group had 16 participants who received treatment in 2 parts.

Group A—In Part 1, participants took fidrisertib alone. In Part 2, they took phenytoin daily on an empty stomach and took fidrisertib once on Day 15 together with phenytoin.

Group B—In Part 1, participants took fidrisertib alone. In Part 2, they took itraconazole daily after eating a meal and took fidrisertib once on Day 10 together with itraconazole.

Participants received fidrisertib on an empty stomach.

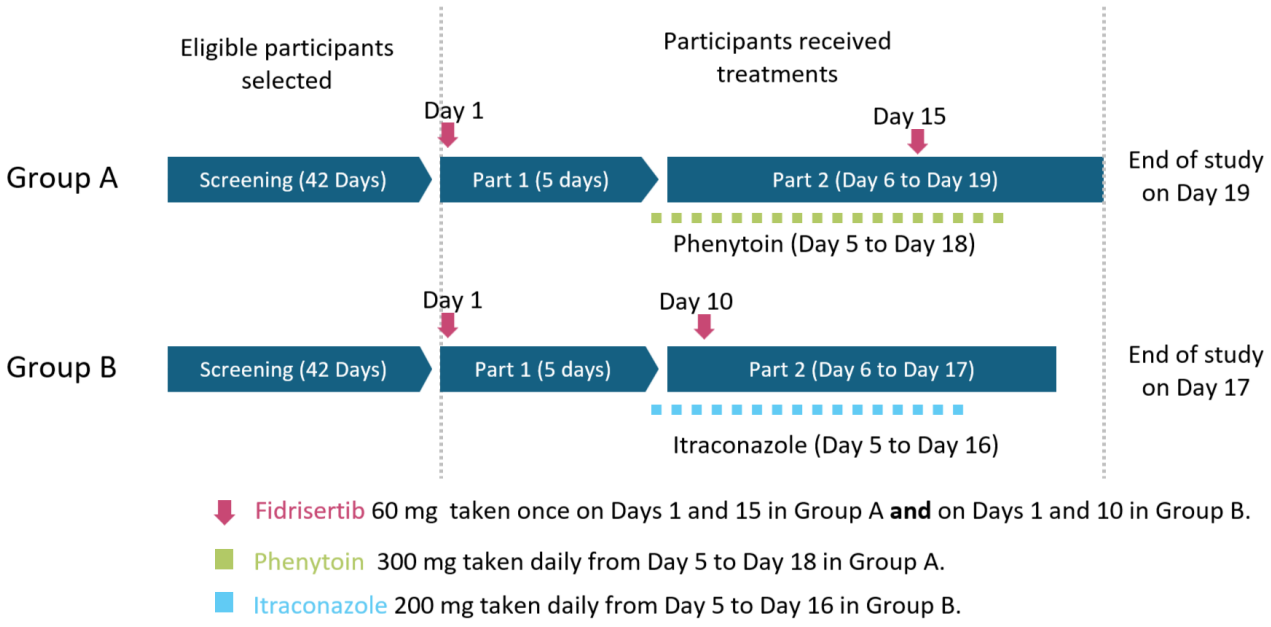
This study was "open-label". This means that the researchers and the participants knew which treatment was taken by each participant.

The study doctors collected participants' blood samples at various times to find out how the amount of the drugs in the blood changed.

Participants were admitted to the clinical research hospital on the day before treatment started and stayed for 19 days if they were from Group A and for 17 days if they were from Group B.

The study lasted for up to 2 months from screening visit to the end-of-study visit. During this time, researchers regularly monitored participants' health through clinic visits and assessments, including after the last treatment. The following figure shows what happened during the study.

Study Design



What did researchers find out in the study?

Itraconazole increased the highest and the total amount of fidrisertib in the blood over time, whereas phenytoin reduced only the total amount of fidrisertib in the blood.

To evaluate how phenytoin and itraconazole affect the amount of fidrisertib in the blood, researchers measured the amount of fidrisertib in participants' blood at different time points during the study. They compared the amount of fidrisertib in the blood when given with phenytoin or itraconazole to the amount observed when fidrisertib was given alone.

How did the highest and total amount of fidrisertib in the blood change when taken with phenytoin, compared with when taken alone?

The highest amount of fidrisertib in the blood was not affected by the intake of phenytoin. The total amount of fidrisertib over time was decreased by about 25% (a quarter) when taken with phenytoin compared with when taken alone. This means that phenytoin sped up the breakdown of fidrisertib in the body.

How did the highest and total amount of fidrisertib in the blood change when taken with itraconazole, compared with when taken alone?

The highest amount of fidrisertib increased by 80% (nearly doubled) when taken with itraconazole compared with when fidrisertib was taken alone. The total amount of fidrisertib in the blood over time was increased by about 150% (up to two and a half times) when taken with itraconazole compared with when it was taken alone. This means that itraconazole slowed down the breakdown of fidrisertib in the body.

What were the other findings in the study?

How safe and well-tolerated was fidrisertib when given either alone and when given with itraconazole or phenytoin in healthy adults?

The researchers found that fidrisertib 60 mg was safe and well-tolerated when given alone and with itraconazole or phenytoin in healthy adults.

How did the treatment make participants feel?

During the study, participants were asked to report any 'adverse events', that is, if they felt unwell, experienced any kind of medical event, or noticed anything different about their bodies. Researchers recorded all adverse events reported by participants, whatever the cause. For example, if participants caught COVID-19, this was reported as an adverse event, although it was not related to the study treatment.

If the study doctor thinks an adverse event may be related to the study treatments, it is called a 'side effect'.

A side effect is considered 'serious' when it is life-threatening, causes lasting problems, or leads to hospitalisation.

- No participants in this study experienced serious side effects.
- No participants died during the study.

In **Group A**, 25% (4 out of 16) of participants experienced side effects either due to fidrisertib or phenytoin.

- 4 participants had sleepiness, headache, itching, and rash and muscle cramps due to **phenytoin**. Of these, itching, and muscle cramps were also related to **fidrisertib**.
- The participant who had the rash stopped taking **phenytoin**.

In **Group B**, 6% (1 out of 16) of participants experienced a side effect of headache due to **itraconazole** and no participants had side effects due to **fidrisertib**.

More information

For more information about current treatments available, please speak to your healthcare provider. If you have any questions about this study, please contact the sponsor, Ipsen at:

clinical.trials@ipsen.com

Future research

There are more ongoing studies with fidrisertib.

Study identification and other information

FULL STUDY TITLE: An Open Label, Two Cohorts, Drug-Drug Interaction, Phase 1 Study to Investigate the Effect of Repeated Dose Phenytoin (Strong CYP3A4 Inducer) or Repeated Dose Itraconazole (Strong CYP3A4 Inhibitor) on the Pharmacokinetics of a Single Dose of IPN60130 in Healthy Adult Participants

OTHER INFORMATION: Phase I studies are conducted with small numbers of healthy participants. This helps researchers figure out the dose of the study drug to use in future studies, to understand what happens to the study drug in the body, and how safe it is.

We thank all the volunteers who took part in this study. Without their support, advances in treatments for medical conditions would not be possible.

We would also like to thank the people who took the time to review this document to make it easier for a general audience to read.