Summary of Results for Laypersons

Astellas is grateful to the patients who took part in this clinical study. Thank you.

What was the Study Called?

An Open-Label, Dose-Escalation/Expansion Phase 1 Study of ASP4132 Given Orally to Patients with Advanced Refractory Solid Tumors and Lymphoma.

Why was this Study Needed?

Cancer in advanced stage may become resistant to the available anticancer treatments. This means that the anticancer treatments can no longer stop the cancer growth or keep the cancer stable. Therefore, there was a need to study new treatments for cancers that have become resistant to the available treatments. ASP4132 is an oral experimental medicine (taken by mouth) for such cancers.

This study was conducted in patients with cancers that were resistant to the available treatments. They took ASP4132. This study was planned to have 2 parts: part 1 and part 2. Part 1 of the study was to look at what the highest dose of ASP4132 was that patients could tolerate. The patients in part 2 of the study were to take that dose. It was also important to find out what unwanted effects the patients had from the study medicine.

The study started in March 2015. In April 2018, the sponsor (Astellas) stopped part 1 of the study and cancelled part 2. The reason was that the highest dose of ASP4132 that was studied had severe unwanted effects. When the study was stopped, 39 patients had taken study medicine. Astellas reviewed all the study information and created a report of the results. This is a summary of that report.

What Kind of Study was This and Who Took Part in it?

This was an "open-label" study. This means that each patient and the study doctors knew which study medicine that patient took (ASP4132).

This study included women and men aged 18 years or older. They had cancer that was resistant to the available treatments. They were active or they could perform light daily activities. Or they were able to walk and capable of all self-care, but unable to carry out any work activities. And they were up and about more than half of the time that they were awake. They were expected to live for at least 3 months.

Part 1:

The patients in part 1 had solid tumors. A solid tumor is an abnormal mass of tissue that usually does not contain cysts or liquid areas. Their tumors were in an advanced stage or had spread from the place where they first formed to another part of the body. The places where their tumors formed were the breast, lung, melanocytes (cells that make the pigment melanin), colon (the longest part of the large intestine) and/or rectum (the last several inches of the large intestine before the anus), prostate, ovary (1 of a pair of female reproductive

glands in which the eggs form and female hormones are made) or cells of the immune system.

Part 2:

Part 2 of the study was to include patients with breast cancer or non-small cell lung cancer (the most common type of lung cancer). Their cancer was in an advanced stage or had spread from the place where it first formed to another part of the body.

What Happened during the Study?

Part 1:

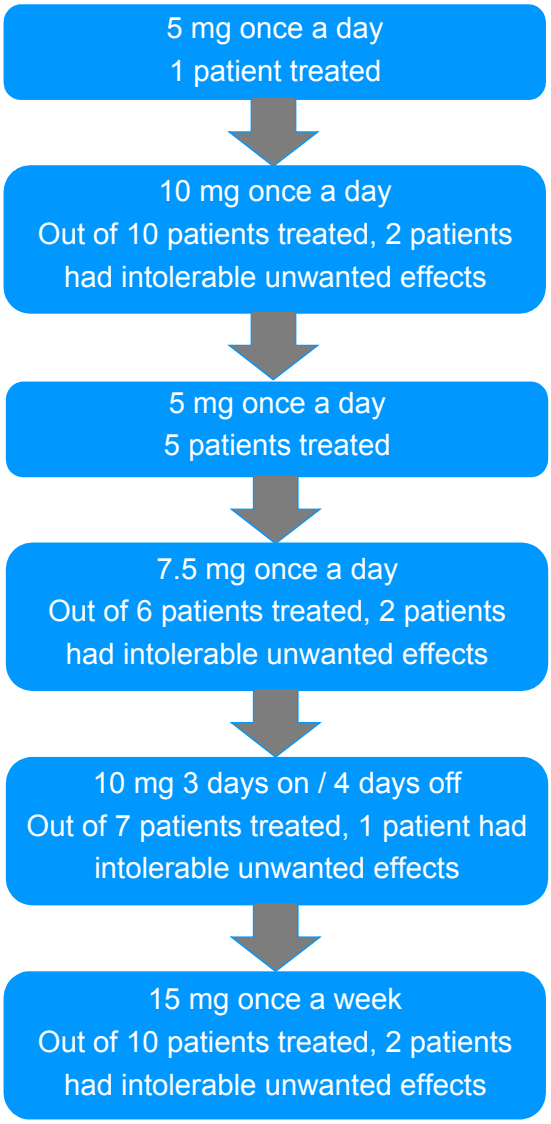
During part 1 of the study, the study doctor did a check-up of the patients at several study visits. At the first visit, patients were checked to see if they could be in part 1. Patients who could be in part 1 of the study were assigned to 1 of 3 treatment groups.

- Group 1: ASP4132 5 mg once a day
- Group 2: ASP4132 7.5 mg once a day
- Group 3: ASP4132 10 mg once a day

One patient in group 1 was the first to take a daily dose of ASP4132. Group 1 had the lowest daily dose (5 mg). During the treatment, the study doctor checked if the patient could tolerate the 5 mg daily dose. The patient could tolerate this dose over 32 days. Therefore, the patients in group 3 could start taking their higher daily dose (10 mg). The study doctor determined that they could not tolerate the 10 mg daily dose. Next, more patients in group 1 started taking the lower daily dose of 5 mg. They could tolerate this dose. Therefore, the patients in group 2 could start taking their higher daily dose (7.5 mg). The study doctor determined that they could not tolerate the 7.5 mg daily doses. Next, the dosing schedule was changed as shown below.

- Group 4: Each week, ASP4132 10 mg once a day for the first 3 days and no study medicine for the next 4 days (3 days on / 4 days off)
- Group 5: ASP4132 15 mg once a week

The patients in group 4 were the first to take their treatment of ASP4132. The doctor determined that they could not tolerate the 10 mg daily dose for 3 days on/4 days off. Next, the patients in group 5 started taking their weekly dose (15 mg).



All patients could take study medicine until their cancer got worse, they had unwanted effects they could not tolerate or they asked to stop treatment. Or the study doctor decided that continuing treatment was no longer in the patients' best interest.

This study took place at 6 clinics in the United States. 39 patients were in the study and took at least 1 dose of study medicine.

	Number of Patients
Age Group Aged between 24 and 80 years	39
Sex Men Women	 9 30

What Were the Study Results?

Part 1 of this study in patients with resistant cancers was to look at what the highest dose of ASP4132 was that patients could tolerate. The patients in part 2 of the study were to take that dose.

Two patients who took 15 mg of ASP4132 once a week (group 5) had severe unwanted effects. That is why Astellas decided to stop the study. One of the 2 patients had changes in mental status. The other patient had abnormal changes in the brain that can cause a collection of symptoms including headache, confusion, seizures and vision loss associated with magnetic resonance imaging findings. The highest dose of ASP4132 that patients could tolerate could not be determined.

What Adverse Reactions did Patients Have?

A lot of research is needed to know whether a medicine causes a medical problem. So when new medicines are being studied researchers keep track of all medical problems that patients have while they are in the study. These medical problems are called "adverse events" and are recorded whether or not they might be caused by the treatment taken. An "adverse reaction" is any medical problem or "adverse event" that is judged by the study doctor to be possibly caused by a medicine or treatment used in the study.

The table below shows the most common adverse reactions experienced by patients who took at least 1 dose of study medicine in this study.

Adverse Reaction	**ASP4132 (out of 39 patients)**
Any adverse reaction	35 (89.7%)
Nausea or the urge to vomit	24 (61.5%)
Vomiting	16 (41.0%)
Increased blood level of lactic acid (produced by cells when oxygen levels are low)	13 (33.3%)
Fatigue or tiredness	12 (30.8%)
Decreased appetite	6 (15.4%)
Dizziness (or sensation of lightheadedness, unsteadiness, or giddiness)	5 (12.8%)

An adverse reaction is considered “serious” when it is life-threatening, causes lasting problems or needs hospital care.

Seven (17.9%, or 7 out of 39 patients) experienced serious adverse reactions in this study.

Five patients died during the study. None of the patients died because of ASP4132.

Where Can I Learn More About This Study?

This document is a short summary of the main results from this study and reflects the information available as of October 2018. You can find this summary and more information about this study online at http://www.astellasclinicalstudyresults.com.

Please remember that researchers look at the results of many studies to find out how well medicines work and which adverse reactions they might cause. This summary only shows the results of this 1 study. Your doctor may help you understand more about the results of this study.

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