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?

A Phase 2b, Randomized, Double-blind, Parallel-group, Placebo-controlled, Dose-finding, Multi-center Study to Evaluate the Safety and Efficacy of ASP015K in Moderate to Severe Rheumatoid Arthritis Subjects

Why was this Study Needed?

The immune system is part of the body that fights foreign objects or infections. Patients with rheumatoid arthritis (or RA for short) have a faulty immune system that attacks the body's own tissues. As a result, these patients have inflammation (swelling and redness) and damage in joints (arthritis). There are some prescription medicines that slow down the progress of joint damage in RA patients. These medicines may cause unwanted effects or may not work well in some patients. Therefore, there was a need to study new treatments for RA. ASP015K (also known as peficitinib) is a new oral prescription medicine (taken by mouth) for RA in Japan.

This study was conducted in patients with moderate to severe RA. Patients took either ASP015K or placebo. (The section below describes what placebo tablets are.) This study looked at the proportion of patients whose RA symptoms improved at least 20%. That is the number of treated patients whose RA symptoms improved at least 20% compared to all treated patients. The study compared patients after they took study medicine (ASP015K or placebo) for 3 months. Four dose levels of ASP015K were studied to see which dose worked best for patients. It was also important to find out what unwanted effects these patients had from the study medicines.

The study started in June 2012 and ended in December 2013. When the study ended, the sponsor of this study (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 a "double-blinded" study. That means that the patients and the study doctors did not know who took which of the study medicines (ASP015K or placebo). A "placebo" is a dummy treatment such as a tablet or capsule that looks like a medicine, but does not have any medicine in it. Using a placebo helps make study results fair and unbiased, because study doctors and patients cannot tell who is taking a placebo, and who is taking the test medicine.

This study included adult women and men aged 18 years or older. These patients had moderate to severe RA for at least 6 months before the study started. The patients had taken prescription medicines for RA in the past. The patients did not improve on those medicines. Or they had unwanted effects from those medicines.

During 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 the study. Patients who could be in the study were picked for a treatment (ASP015K or placebo) by chance alone. Four times as many patients were picked for ASP015K than for placebo.

- ASP015K: Patients took the same dose of ASP015K tablets once a day for 3 months. Their dose was 25, 50, 100 or 150 mg.
- Placebo: Patients took placebo tablets once a day for 3 months.

This study took place at 41 clinics in several countries. 289 patients were in the study and took at least 1 dose of study medicine.

	Number of Patients
Age Group	
Aged less than 65 years	250
Aged 65 years or older	39
Sex	
Men	52
Women	237
Clinic Location	
European Union Countries (*at the time of the study*)	119
Bulgaria	12
Czech Republic	25
Hungary	25
Poland	57
Outside European Union	170
Mexico	32
The US	138

What Were the Study Results?

This study compared patients with moderate to severe RA after they took study medicine (ASP015K or placebo) for 3 months. Four dose levels of ASP015K were studied to see which dose worked best for patients. The study looked at the proportion of patients whose RA symptoms improved at least 20%.

The study showed that the proportion with at least 20% improvement was 56.3% in the group of patients who took ASP015K 150 mg for 3 months. This means that RA symptoms improved at least 20% in 36 out of the 64 patients treated in this group. The proportion with at least 20% improvement was 29.4% in the group of patients who took placebo for 3 months. This means that RA symptoms improved at least 20% in 15 out of the 51 patients treated in this group. A statistical test showed that the difference between the 2 groups was not likely to be due to chance. The 3 highest ASP015K dose levels had higher proportions of patients with improvement than placebo. The 25 mg dose level was too low to be effective.

Study Results After Treatment for 3 Months	ASP015K 25 mg	ASP015K 50 mg	ASP015K 100 mg	ASP015K 150 mg	Placebo
Proportion of patients whose RA symptoms improved at least 20%	22.0% (13 out of 59 patients)	36.8% (21 out of 57 patients)	48.3% (28 out of 58 patients)	56.3% (36 out of 64 patients)	29.4% (15 out of 51 patients)

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.

Most Common Adverse Reaction	ASP015K (out of 238 patients)	Placebo (out of 51 patients)
Any adverse reaction	55 (23.1%)	9 (17.6%)
Infection of the upper respiratory tract (nose, sinuses, throat, wind pipe, and voice box)	11 (4.6%)	1 (2.0%)
Nausea or the urge to vomit	10 (4.2%)	0
Diarrhea	6 (2.5%)	1 (2.0%)
Heartburn	5 (2.1%)	1 (2.0%)
Increased blood level of cholesterol	4 (1.7%)	1 (2.0%)
Increased blood level of enzyme (creatine phosphokinase) from muscle	3 (1.3%)	0
Increased blood level of a form of fat called triglyceride	3 (1.3%)	0
Urinary tract infection	3(1.3%)	1 (2.0%)
Diseased patch of skin	2 (0.8%)	0
Headache or head pain	2 (0.8%)	0
High blood pressure	2 (0.8%)	0
Unpleasant sensation of irregular and/or forceful beating of the heart	2 (0.8%)	0

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

One patient (0.4%, or 1 out of 238 patients) who received ASP015K experienced a serious adverse reaction in this study.

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 July 2014. 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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