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 in Subjects who Have Had an Inadequate Response to Methotrexate

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). Methotrexate is an oral prescription medicine (taken by mouth) that slows down the progress of joint damage in RA patients. It may cause unwanted effects or may not work well enough 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 for RA in Japan.

This study was conducted in patients with moderate to severe RA. These patients were taking methotrexate but it did not work well enough. In this study, 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 July 2012 and ended in February 2014. 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. The patients had moderate to severe RA for at least 6 months before the study started. The patients had been taking the same prescribed weekly dose of methotrexate for at least 4 weeks before the study started.

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. All patients continued to take their prescribed weekly dose of methotrexate during the study.

- 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 43 clinics in several countries. 379 patients were in the study. Out of these patients, 378 patients took at least 1 dose of study medicine.

	Number of Patients
Age Group	
Aged less than 65 years	315
Aged 65 years or older	63
Sex	
Men	63
Women	315
Clinic Location	
European Union Countries (*at the time of the study*)	163
Belgium	9
Bulgaria	14
Czech Republic	30
Hungary	18
Poland	92
Outside European Union	215
Colombia	25
Mexico	43
The US	147

What Were the Study Results?

This study compared patients with moderate to severe RA after they took study medicine (ASP015K or placebo) together with methotrexate 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 61.5% in the group of patients who took ASP015K 50 mg plus methotrexate for 3 months. This means that RA symptoms improved at least 20% in 48 out of the 78 patients treated in this group. The proportion with at least 20% improvement was 44.4% for patients who took placebo plus methotrexate for 3 months. This means that RA symptoms improved at least 20% in 32 patients out of the 72 patients treated in this group. A statistical test showed that the difference between the 2 groups was not likely to be due to chance.

Study Results After Treatment for 3 Months	Methotrexate				
	ASP015K 25 mg	ASP015K 50 mg	ASP015K 100 mg	ASP015K 150 mg	Placebo
Proportion of patients whose RA symptoms improved at least 20%	43.9% (29 out of 66 patients)	61.5% (48 out of 78 patients)	46.4% (39 out of 84 patients)	57.7% (45 out of 78 patients)	44.4% (32 out of 72 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 and Methotrexate (out of 306 patients)	Placebo and Methotrexate (out of 72 patients)
Any adverse reaction	65 (21.2%)	13 (18.1%)
Urinary tract infection	8 (2.6%)	1 (1.4%)
Diarrhea	7 (2.3%)	1 (1.4%)
Infection of the upper respiratory tract (nose, sinuses, throat, wind pipe and voice box)	5 (1.6%)	0
Increased blood level of a form of fat called triglycerides	4 (1.3%)	1 (1.4%)
Increased blood level of cholesterol	4 (1.3%)	1 (1.4%)
Upper belly pain	4 (1.3%)	2 (2.8%)
Belly pain	3 (1.0%)	1 (1.4%)
Common cold	3 (1.0%)	0
Nausea or the urge to vomit	3 (1.0%)	0
Shingles (herpes zoster)	3 (1.0%)	0
Dizziness (or sensation of lightheadedness, unsteadiness or giddiness)	2 (0.7%)	1 (1.4%)

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

One patient (0.3%, or 1 out of 306 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 April 2015. 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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