PROJECT INFORMATION

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Comparing Three Ways to Start Treatment for Patients with Polyarticular Juvenile Idiopathic Arthritis -- The STOP-JIA Trial

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What was the research about?

Juvenile idiopathic arthritis, or JIA, causes joint stiffness, swelling, and damage. More than half of children with JIA have a form of the disease called polyarticular JIA, or pJIA, which causes swelling in five or more joints. Having pJIA can make it hard to move around, walk, or do daily activities such as getting dressed or brushing teeth.

Although pJIA doesn't have a cure, treatments can limit inflammation and reduce damage in the joints. Medicines used to treat pJIA are called disease-modifying antirheumatic drugs, or DMARDs. The newest types of DMARDs are called biologics. Doctors don't know the best time to start treatment with biologic medicines.

In this study, patients and their families worked with their doctors to choose from three treatment options:

- **Step Up:** Patients started treatment with a non-biologic DMARD medicine only.
- **Early Combination:** Patients started treatment with both a non-biologic DMARD and a biologic medicine.
- **Biologic First:** Patients started treatment with a biologic medicine only.

If patients' symptoms didn't improve after three months, they could change or add medicines.

What were the results?

Of patients in the study, 64 percent chose Step Up, 25 percent chose Early Combination, and 11 percent chose Biologic First as their treatment option.

After a year, the three options worked about the same in limiting inflammation and helping patients become symptom free. Less than half of patients became symptom free using any of the options.

For all three options, patients had less pain and were better able to move after one year. The three options didn't differ in improving pain and ability to move.

Who was in the study?

The study included 400 children with pJIA. Of these, 73 percent were white, 8 percent were black, and 20 percent were another race. The average age was 10, and 73 percent were girls. All received care at one of 56 clinics across the United States.

What did the research team do?

The research team enrolled patients with pJIA before they started treatment. After starting treatment, patients went to the doctor every three months for a year. At these visits, patients or caregivers filled out surveys about their health. Doctors also filled out forms in patients' health records at these visits.

Patients with pJIA, caregivers, an arthritis foundation staff member, a nurse, a research coordinator, and an insurer gave input during the study.

What were the limits of the study?

Fewer patients started treatment with both medicines or with the biologic medicine alone than planned, making it hard to detect differences between treatments. For 18 percent of patients, data to determine whether they were symptom free and had reduced inflammation were missing. Results may have differed if the team had complete data on more patients. Over time, fewer patients answered the surveys, which could also make the results less accurate.

Future research could look at other ways to help patients with pJIA become symptom free.

How can people use the results?

Patients with pJIA and their doctors can use these results when discussing treatment options.

To learn more about this project, visit www.pcori.org/Kimura342.