

# Comparison of Abatacept impact on Disease Activity and Functional Status in Patients with Different Stages of Rheumatoid Arthritis

Maria Kanonirova<sup>1</sup>, Galina Lukina<sup>2</sup>, Yakov Sigidin<sup>3</sup>, Evgeniya Aronova<sup>4</sup>, Svetlana Glukhova<sup>5</sup>, Elena Luchihina<sup>6</sup>, Dmitriy Karateev<sup>7</sup>, Evgeniy Nasonov<sup>8</sup>  
Nasonova Research Institute of Rheumatology, Russia  
E-mails: <sup>1</sup>[behappy87@mail.ru](mailto:behappy87@mail.ru), <sup>2</sup>[gv13@yandex.ru](mailto:gv13@yandex.ru), <sup>3</sup>[gv13@yandex.ru](mailto:gv13@yandex.ru), <sup>4</sup>[gv13@yandex.ru](mailto:gv13@yandex.ru),  
<sup>5</sup>[sveglukhova@yandex.ru](mailto:sveglukhova@yandex.ru), <sup>6</sup>[eleluch@yandex.ru](mailto:eleluch@yandex.ru), <sup>7</sup>[dekar@inbox.ru](mailto:dekar@inbox.ru), <sup>8</sup>[sokrat@irramn.ru](mailto:sokrat@irramn.ru)

**Abstract:** Objectives: To assess the impact of ABA on disease activity and functional status in patients with different duration of RA.

Materials and methods: 85 patients (pts) with early (less than three years, 51%) and LS (more than three years, 49%) RA were enrolled in the study. Most of them were females ( $48,8 \pm 13,5$  years) with high disease activity (DAS28= $5,25 \pm 1,15$ ), RF-positive (76,7%) and ACPA-positive (73,1%). ABA (10 mg/kg) was administered intravenously following the adult intravenous dosing regimen. Disease activity was assessed by DAS28, functional status by HAQ-DI and results by EULAR criteria every 12 weeks.

Results: Pts had high disease activity by DAS28 (ERA DAS28 -  $5,1 \pm 0,9$ , LS RA -  $5,3$ ) and mild disability by HAQ-DI (ERA -  $1,3 \pm 0,6$ , LS RA -  $1,6 \pm 0,9$ ) before treatment. Good and moderate response by EULAR criteria was achieved in 80% in the group of ERA and in 67% of pts with LS RA ( $p < 0.05$ ) after 3 months of therapy. There was no significant difference in achieving good EULAR response between two groups after 6 months of therapy (43,75% - ERA; 38,4% - LS RA). The number of non-responders was similar after 3 months (ERA – 20%, LS RA – 31,4%) and 6 months (ERA – 18,7%, LS RA – 19,2%). After 3 months and 6 months the improvement of HAQ-DI in ERA group was significantly higher, than in LS RA group ( $p < 0.05$ ). 28 adverse events (AE) in 17 (20%) pts were registered.

Conclusion: ABA has shown significant improvement in reduction of disease activity and improvement in functional status in pts with RA. No significant difference was seen between the groups of ERA and LS RA by EULAR criteria. However, pts in ERA group had significant improvement of HAQ-DI comparing with LS RA group.

**Key words:** rheumatoid arthritis, early arthritis, biologics, abatacept, co-stimulation of T cells, methotrexate