**Objectives:** In this study, we compared the efficacy of IGU in elderly group with the non-elderly group.

**Methods:** 190 patients who were able to continuously administer IGU more than three months was included. Cases were divided into two groups, Group A (75 years or older) includes 57 patients, and Group B (younger than 75 years) includes 133 patients. The patients background, the use of methotrexate (MTX) and glucocorticoid, the change of serum CRP, and the DAS28-ESR (before, 6, 12, and 24 months) as an evaluation of the disease activity were compared between two groups. The study protocol was approved by our institutional review board. All the patients were required to give written informed consent.

**Results:** The average age at the beginning of IGU was 79.9±4.1 years old in Group A, and 59.9±10.6 years old in Group B. The average disease duration was 14.8±16.5 year in Group A and 8.5±10.6 year in Group B (p<0.01). Although the rate of concomitant use of MTX was significantly lower in Group A (Group A: 28.1%, Group B: 56.4%), the averaged dose of MTX did not show difference between groups (70 and 8.4 mg/week, respectively). Group A showed significantly higher rate of concomitant use of glucocorticoid (56.1% and 36.1%, respectively), but the averaged dose of glucocorticoid did not show a difference between groups (4.3 and 3.6 mg/day, respectively). Similarly, the rate of concomitant use of NSAIDs did not have a difference in two groups. Group A showed significantly higher serum CRP at the beginning of the IGU (Group A: 2.0 mg/dl, Group B: 12.9 mg/dl), but there was no difference after six months. In both groups, serum CRP was significantly decreased when compared at the beginning of IGU. After six months of IGU administration, both groups showed good clinical performance with DAS28-ESR, more than 60% of the cases showed remission or low disease activity. No difference of DAS28-ESR scores between two groups was observed after six months.

**Conclusion:** From the results of this study, the efficacy of IGU for elderly patients was confirmed and did not show differences with non-elderly people. IGU is an inexpensive drug with enough efficacy and thought to be possible substitute for other DMARDs.

**References:**
Background: Balicitinib (BAR) is one of the Janus kinase (JAK) inhibitors, which mainly inhibits JAK1 and JAK2 and has an anti-inflammatory effect on rheumatoid arthritis (RA). In Japan, it is necessary to use different doses of BAR depending on the RA patient’s estimated glomerular filtration rate (eGFR). The RA-BEACOM and RA-BUILD trials reported the treatment effects by BAR dose at 24 weeks and concluded that there was no difference in DAS (disease activity score)28CRP between BAR 2mg and 4mg. The patient background treated in these double-blind RCTs is uniform even at different BAR doses. There is uncertainty about the difference in the therapeutic effects of BAR dose under the real clinical setting where the patient background differs from that of the trial patients.

Objectives: To compare patient backgrounds and treatment outcome by Baricitinib dose under real clinical setting.

Methods: 113 RA patients taking BAR who were registered in the Nagoya University Orthopedic Surgery Multicenter Study (TBCR) were included in this study. Patient characteristics (such as age, illness duration, combined anti-rheumatic drugs, eGFR) and DAS28CRP, clinical and simplified disease activity index (CDAI, SDAI respectively) up to 24 weeks were compared between BAR 2mg and 4mg groups. The continuation rates, including the discontinuation due to ineffectiveness and adverse events (AEs), were also compared between the two groups. For these comparisons, Student’s t-test and Pearson's chi-square test, Kaplan-Meier survival curve were used. Missing data due to discontinuation of BAR was complemented by LOCF method and analyzed statistically. The significance level was set to less than 0.05.

Results: There were 39 subjects (8 males and 31 females) in BAR2mg group and 74 patients (17 males and 57 females) in BAR4mg group. There was a significant difference in mean age (73.5 vs. 62.3 years old, p < 0.001), average MTX dose (3.0 vs 5.5mg, p = 0.018), methotrexate(MTX) use rate (28 vs 58%, p < 0.01), average GC dose (1.91±2.36 vs 1.32±2.20, p = 0.191), ACPA >4.5U/ml 29(74.4) vs. 59(79.7), p = 0.629, eGFR, ml/min/1.73m² 65.1±27.7 vs 84.8±23.2, p < 0.001), methotrexate (MTX) use rate (28 vs 58%, p < 0.01), average GC dose (1.91±2.36 vs 1.32±2.20, p = 0.191).

Conclusion: BAR2mg group under real clinical setting was older and had lower eGFR than BAR4mg group. Although the treatment effect for 24 weeks was similar, safety management was considered more important because the discontinuation rate due to AEs tended to be higher in BAR2mg group.

References:

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