Methods: Adult (≥ 18 yo) patients with symptomatic, refractory inflammatory mono- or oligoarthritis were included for RSO with Yttrium-90 citrate as part of a phase-III, prospective, open-label non-controlled trial. All patients were required to have failed 6-months of medical therapy and 2 intra-articular injections and have minimal evidence of cartilage or bone destruction. Only large and medium-sized joints were included (i.e. knees, ankles, wrists and elbows). The dose of Yttrium was adjusted based on the size of joint. Follow-up evaluations were done at 3, 6 and 12 months after RSO. Safety was assessed by patient and clinician reported adverse events. Clinical response was measured by improvement in joint tenderness, effusion and range of motion.

Results: A total of 74 patients and 83 joints (88% knees) were treated with Yttrium-90 citrate. The underlying diagnosis included 25.7% RA, 34% SpA, 11% JIA, and 30.3% other inflammatory arthritis. Complications included 3 post-RSO flares, 1 septic joint and 2 injection site skin infections. Joint tenderness was reported in 93.8% of joints at baseline, compared to 50.0% at 3mo ($p<0.001$), 55.6% at 6mo ($p<0.001$) and 40.4% at 12mo ($p<0.001$). Joint effusion was present in 95.1% of joints at baseline, 44.3% at 3mo ($p<0.001$), 51.4% at 6mo ($p<0.001$) and 47.4% at 12mo ($p<0.001$). 73.9% of joints had improvement in range of motion at 3mo, 55.9% at 6mo and 60.7% at 12mo.

Conclusion: These results confirm the clinical efficacy and safety of Yttrium90-citrate RSO for refractory synovitis with a sustained clinical benefit at 12 months. This is the first such study in a Canadian cohort. RSO with Yttrium is a safe alternative to surgical synovectomy in refractory cases.

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FRI0167

DOES BARICITINIB HAVE A SPECIFIC EFFECT PATIENT'S REPORTED OUTCOME? COMPARISON OF EFFECTS ON PAIN AND PATIENT GLOBAL ASSESSMENT WITH TNF INHIBITORS

Eiji Torikai¹, Daisuke Suzuki². ¹Iwata city hospital, Iwata, Japan; ²Hamamatsu university school of medicine, Hamamatsu, Japan

Background: Baricitinib (bari) is approved for treating moderate-severe rheumatoid arthritis (RA) in many countries, including Japan. Bari is an oral Janus kinase (JAK1)/JAK2 selective inhibitor and has shown good efficacy in RA and an adequate response to conventional synthetic DMARDs in some clinical trials. Pain and patient global assessment (PGA) are common symptoms for patients with RA. Some trials suggest that bari may have a supplementary benefit on patients' reported outcomes (PRO). Our goal was to determine the impact of each treatment on pain and PGA.

Objectives: We evaluated and compared the impact of bari and TNF inhibitors (TNFi) on pain and PGA and correlation with PRO and clinical assessments for Japanese RA patients who have an inadequate response to csDMARDs in real world multicenter clinical data.

Methods: We included 60 Japanese RA patients with an inadequate response to csDMARDs. We classified patients into two groups, one treated with bari (B group; 24 females and 8 males) and the other with TNFi (TNFi group; 22 females and 6 males). Patients were scheduled to receive TNFi (GLM 50 mg/month or ETN 50 mg/week) in TNFi group or bari 4 or 2 mg/day in B group as a monotherapy or in combination with csDMARDs. We evaluated swollen joint counts on 28 joints (SJC), tender joint counts on 28 joints (TJC), visual analog scale of pain (VAS pain) (0-100 mm), PGA (0-100 mm), and Clinical Disease Activity Index (CDAI) at baseline, 4 weeks, and 12 weeks. First, we compared the changes in SJC, TJC, CDAI, VAS pain, and PGA at 4 and 12 weeks after treatments between the two groups. Second, we evaluated the correlation between PROs (VAS pain or PGA) and variations in clinical evaluation items (SJC, TJC, and CDAI).

Results: There were no significant differences in background at baseline between the two groups (Table 1). Baseline SJC, TJC, and CDAI scores; VAS pain; and PGA were 6.67 ± 3.81 , 7.93 ± 3.69 , 26.35 ± 8.77 , 61.2 ± 21.8 , and 62.2 ± 18.4 in the bari group, respectively, and 6.13 ± 3.21 , 7.27 ± 3.56 , 24.65 ± 9.72 , 63.9 ± 22.7 , and 64.2 ± 18.4 in the TNFi group, respectively. SJC, TJC, CDAI scores, VAS pain, and PGA

in both groups were significantly improved 1 month after treatment. This tendency continued for 3 months after treatment. There were no significant differences in the improvement rate of SJC, TJC, CDAI scores, VAS pain, and PGA between the two groups at each follow-up time point after treatment. VAS pain scores were significantly correlated with SJC and CDAI scores in both groups (B group; $r = 0.651$, $p < 0.01$ and TNFi group; $r = 0.688$, $p < 0.01$). PGA scores were significantly correlated with SJC and CDAI scores in both groups (B group; $r = 0.657$, $p < 0.01$ and TNFi group; $r = 0.613$, $p < 0.01$).

Table 1. Patient's background

	Bari group	TNFi group
Age (year)	60.2 ± 10.4	60.6 ± 10.1
Disease duration (year)	4.00 ± 7.54	4.32 ± 5.13
Male/female	8/16	7/15
MTX dose (mg/week)	7.0 ± 3.0	7.0 ± 3.0
PLA dose (mg/day)	3.40 ± 2.06	3.37 ± 2.00
# of previous TNFi treatment (n)	66.7 (70.9)	59.4 (55.6)
Swollen joint (SJC)	10.1 (8.7) (7.7)	10.1 (7.7) (6.0)
Tender joint (TJC)	17.1 (14.7) (7.7)	10.1 (7.7) (6.0)

Table 2. Changes of clinical assessment

	Baseline	4 weeks	12 weeks
SJC	6.67 ± 3.81	3.00 ± 1.82*	3.00 ± 1.42*
TJC	7.93 ± 3.69	2.27 ± 1.50*	1.40 ± 1.37*
CDAI	26.35 ± 8.77	8.00 ± 3.84*	5.13 ± 3.07*
PLA dose (mg)	3.40 ± 2.06	3.40 ± 2.06	3.40 ± 2.06
MTX dose (mg)	7.0 ± 3.0	7.0 ± 3.0	7.0 ± 3.0

*p < 0.05 vs baseline

	Baseline	4 weeks	12 weeks
SJC	6.13 ± 3.21	2.00 ± 1.80*	1.50 ± 1.20*
TJC	7.27 ± 3.56	2.00 ± 1.80*	1.00 ± 1.00*
CDAI	24.65 ± 9.72	9.00 ± 4.00*	5.00 ± 3.00*
PLA dose (mg)	3.37 ± 2.00	3.37 ± 2.00	3.37 ± 2.00
MTX dose (mg)	7.0 ± 3.0	7.0 ± 3.0	7.0 ± 3.0

*p < 0.05 vs baseline

Conclusion: Our results indicate that the effect of bari on pain and PGA is correlated with the improvement rate in disease activity. Bari treatment is not significantly different than TNFi, at least during the short term, in real world clinical data.

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POSITIVE EFFECTS OF AN ANTI-INFLAMMATORY DIET IN RHEUMATOID ARTHRITIS

Anna Vadel, Erik Hulander, Linnea Barebring, Inger Gjerdtsson, Helen Lindqvist, Anna Winkvist. Institute of Medicine, Gothenburg, Sweden

Background: Many patients with rheumatoid arthritis (RA) experience symptom relief of certain foods and earlier research has shown positive effects of food and food components on clinical outcomes of RA. Food components may potentiate each other in their effects on RA, but even so, studies combining foods and food components with probable effects on RA are scarce. Furthermore, comorbidities are common in RA and the risk of cardiovascular disease is elevated in this group. Assumed mechanisms include classical risk factors such as systemic inflammation, dyslipidemia as well as an unfavorable body composition.

Objectives: We investigated if a diet combining foods with anti-inflammatory effects, i.e. an anti-inflammatory portfolio diet, could reduce RA disease activity, markers of inflammation, body composition and blood lipid levels compared to a control diet.

Methods: In this controlled cross-over trial, 50 patients with RA were randomized to start with either intervention or control diet for ten weeks followed by a wash-out period of four months. The intervention diet was an anti-inflammatory portfolio diet containing foods rich in omega-3 fatty acids, fibers and probiotics. The control diet was a typical Swedish diet. Food equivalent to 50% of daily energy needs was delivered home weekly. For the remaining intake, participants were instructed to consume similar foods as the study diet regimen. Primary outcome measure was change in DAS28, using ESR. Secondary outcomes included changes in blood lipid levels, ESR and CRP as well as body composition.

Results: No significant difference in DAS28 between the groups was seen using Mixed Models analyze ($p=0.116$). However, DAS28 was significantly lower after the intervention diet compared to after control diet ($p=0.04$) and a significant reduction over time was seen in the intervention group ($p=0.012$) using Wilcoxon signed rank test. HDL-cholesterol was increased and TG were lowered after intervention compared to control, analyzed using Mixed Models ($p=0.046$ and $p=0.006$ respectively). In addition, there was a non-significant trend towards lowered LDL-cholesterol ($p=0.077$). Comparing after intervention to after control, there were non-significant lower weight, BMI and fat mass after the intervention ($p=0.077$, $p=0.075$ and $p=0.058$ respectively). None of the other outcomes changed significantly between groups.