scanning ($P<0.001$) in 58 SpA patients were significantly lower than those before the operation; the rate (16.84% vs 6.32%, $P=0.023$) and grading ($P=0.007$) of popliteal cyst in RA were decreased after the operation; No statistically difference was observed in the rate (6.90% vs 5.17%, $P=0.697$) of popliteal cyst in SpA, but the grading were all decreased in 4 patients.

Tab.2 Comparison of pre- and postoperative data in RA patients.

	Pre	Post	P
ESR($\bar{x} \pm s$)	49.42 $\pm$ 32.54	24.46 $\pm$ 24.17	<0.001
CRP($\bar{x} \pm s$)	8.55 $\pm$ 16.43	5.60 $\pm$ 22.45	<0.001
RF($\bar{x} \pm s$)	191.29 $\pm$ 373.72	74.90 $\pm$ 158.31	<0.001
DAS28($\bar{x} \pm s$)	4.67 $\pm$ 1.25	2.81 $\pm$ 1.23	<0.001
Knee discomfort score($\bar{x} \pm s$)	5.2 $\pm$ 1.7	1.9 $\pm$ 1.5	<0.001
Popliteal cyst(n,%)	16 (16.84)	6 (6.32)	0.023

Tab.4 Comparison of pre- and postoperative data in SpA patients.

	Pre	Post	P
ESR($\bar{x} \pm s$)	36.76 $\pm$ 28.71	21.19 $\pm$ 9.79	<0.001
CRP($\bar{x} \pm s$)	9.16 $\pm$ 21.46	3.36 $\pm$ 6.44	<0.001
Knee discomfort($\bar{x} \pm s$)	4.48 $\pm$ 1.06	2.51 $\pm$ 1.54	<0.05
Back pain($\bar{x} \pm s$)	2.74 $\pm$ 2.88	1.56 $\pm$ 1.70	<0.001
Popliteal cyst(n,%)	4 (6.90)	3 (5.17)	0.697

Conclusion: This study provide evidence that knee arthroscopic synovectomy has a good effect for refractory knee arthritis, which can reduce disease activity, improve joint symptoms and decrease the grading of popliteal cyst.

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AB0425

CONVERSE RELATIONSHIP OF URIC ACID AND VITAMIN D3 IN ADULT BAHRAINI PATIENTS WITH RHEUMATOID ARTHRITIS AND SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: The relationship between serum levels of uric acid (UA) and serum vitamin D3 (25(OH)D) in rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE) has been revealed separately. However, a possible link between these two factors in RA in comparison to SLE has not been clarified yet. This is the first study investigating the joint association between 25(OH)D and UA in two related rheumatic diseases in Bahrain.

Objectives: We aimed to evaluate the possible correlation between serum UA and serum 25(OH)D in adult Bahraini patients with RA and SLE and to examine if there are any differences or similarities between these two patient's groups.

Methods: Eighty adult Bahraini patients (RA=30 and SLE=50) were included in this longitudinal study (two-time points). The mean age of the patients was 45.21 years (range 16–77 years, SD=14.82). Females were

70 (87.5%). Only data for serum UA taken at the same time with vitamin D3 before and after vitamin D3 therapy were collected retrospectively from the patients' records at Salmaniya Medical Complex, Bahrain. The patients received oral vitamin D therapy at a dose of 50,000 IU weekly for 3 months.

Results: Our results showed that in our studied group the mean serum level of 25(OH)D was significantly increased from 48.17 at baseline to 78.87nmol/l after therapy with an increment of 30.71 ($P<0.0001$). Conversely, the mean serum level of UA in our cohort was significantly decreased from 333.26 at baseline to 304.67 μ mol/l after therapy ($P<0.001$). When segregated the group by disease: The mean serum level of 25(OH)D was significantly increased in SLE from 38.39 at baseline to 72.41 nmol/l after therapy ($P=0.000$), similarly in RA patients 25 (OH)D was significantly increased from 61.67 at baseline to 87.03nmol/l after therapy ($P=0.002$). In SLE serum UA decreased after vitamin D3 therapy, but the difference was not significant, while in RA the mean serum UA was significantly decreased from 309.83 to 262.03 after therapy ($P=0.001$). The SLE patients had statistically significant lower serum levels of 25(OH)D at baseline compared to RA ($p=0.000$). Conversely, RA patients had statistically significant lower serum levels of UA after vitamin D3 therapy compared to SLE ($p=0.016$). Age group >40 years had significant lower serum UA than those <40 before ($p=0.015$) and after therapy ($p=0.037$).

Conclusion: Our study showed that vitamin D3 therapy brought about 1.5 and 2.0 folds increment in its mean serum level in RA and SLE patients, respectively. RA patients showed more reduction in serum uric acid after vitamin D3 therapy compared to SLE, however, similar results manifested by age group>40 years compared to age group <40 yrs. The current study established that serum 25(OH)D levels were inversely correlated with serum uric acid levels in adult Bahraini patients with RA and SLE, thus, the correction of hypovitaminosis resulted in reduction of serum UA.

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AB0426

COMPARISON OF INFLUENCES OF DIFFERENT CONCOMITANT DRUGS IN RHEUMATOID ARTHRITIS PATIENTS TREATED WITH IGURATIMOD, A CONVENTIONAL SYNTHETIC DISEASE-MODIFYING ANTI-RHEUMATIC DRUG DEVELOPED IN JAPAN, IN REAL-WORLD CLINICAL SETTING

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Background: Igratimod (IGU) is csDMARDs developed in Japan and used in Japanese daily practice since 2012. Although IGU was developed as an anti-inflammatory drug at first, anti-rheumatic effect was found in experiments using type II collagen-induced arthritis model mice ¹⁾. Main mode of action of IGU was thought to be inhibition of NF- κ B resulted in decreased production of IL-6, IL-8 and TNF- α ²⁾. Clinical trials performed in Japan showed that efficacy of IGU was equal to sulfasalazine when used as monotherapy in patients with RA ³⁾. Additive efficacy to MTX was also shown in double-blind randomised trial in RA patients ⁴⁾. We reported efficacy of IGU in daily clinical practice in EULAR2017 ⁵⁾. IGU is prescribed as monotherapy or concomitantly with other DMARDs such as MTX, csDMARDs other than MTX or biological DMARDs.

Objectives: Influences of different concomitant drugs were compared in RA patients treated with IGU in this retrospective study.

Methods: 178 RA patients treated with IGU in our institute from April 2013 to June 2017 were included. Patients were divided into four groups. (1) Group in which IGU was started as monotherapy (MONO-G: n=59). (2) Group in which IGU was added on to MTX treatment without bDMARDs (MTX-G: n=81). (3) Group in which IGU was added on to csDMARDs treatment other than MTX (sulfasalazine, tacrolimus, bucillamin) (CSD-G: n=26). (4) Group in which IGU was added onto bDMARDs treatment. (BIO-G: n=12). Patients' characteristics, time course of disease activity (LOCF analysis), continuation rates of IGU (Kaplan-Meier) and reasons of stopping IGU were investigated and compared between groups.

Results: Baseline characteristics was as below. Mean age was 71.4 years old (yo) in MONO-G, 58.3 yo in MTX-G, 70.1 yo in CSD-G, and 58.7 yo in BIO-G. RA duration was 10.2 years in MONO-G, 8.9 years in MTX-G, 11.2 years in CSD-G, and 15.1 years in BIO-G. SDAI at initiation of IGU was 14.2 in MONO-G, 12.8 in MTX-G, 21.3 in CSD-G, and 18.4 in BIO-G. SDAI was significantly improved over time in all four groups (Fig. 1). There were no significant differences in Δ SDAI from baseline to 1 year between groups by one-way ANOVA (Bonferroni). Continuation rates of IGU at one year and three years were 66.6% and 21.2% in MONO-G, 77.8% and 57.1% in MTX-G, 69.2% and 39.7% in CSD-G and 75.0% and 75.0% in BIO-G. Continuation rate in MTX-G was significantly favorable compared with that in MONO-G and CSD-G by Log-rank test (Fig. 2). Most frequent reason for stopping IGU was liver damage (10 cases). Second frequent reason was intermittent pneumonia in 4 cases and infectious pneumonia in 4 cases.

Conclusion: IGU seemed to be the most tolerant in MTX-G and the second most tolerant in BIO-G. Although higher aged population who might have several comorbidities was included in MONO-G and CSD-G, moderate efficacy of IGU was seen in those groups. Although biological DMARDs is effective in RA patients, the cost is very expensive. IGU is comparative cheap (¥9,200/month) and suitable for RA patients with economic difficulties. As IGU decreased TNF-alpha production via inhibition of NF-kB, MTX+IGU may have similar mode of action with MTX+TNF inhibitor. Although small cases were included in BIO-G, Continuation rate of IGU in BIO-G was good.

Fig 1. Δ SDAI from baseline
Only patients in whom iguratimod was continued over 3 months were included. Last observation carried forward.

Fig 2. Continuation rates of iguratimod
All patients in whom iguratimod was prescribed were included. Kaplan-Meier.

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AB0427

DIFFERENCES IN DRUG USAGE BETWEEN EORA AND YORA PATIENTS WITH TARGET OF LOW DISEASE ACTIVITY

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Background: Along with the present aging population, development of new therapies such as biological disease-modifying anti-rheumatic drugs for rheumatoid arthritis (RA) has resulted in an increasing number of elderly patients with RA seeking treatment. Furthermore, the onset age of RA has been reported to be trending higher. Elderly onset RA (EORA) is defined as that which develops after 60 years of age, and shown to differ from young onset rheumatoid arthritis (YORA) in regard to background and drug treatment.¹ Although many EORA cases have acute onset, cases with polymyalgia rheumatica (PMR)-like symptoms and negative for rheumatoid factor (RF) have recently been observed at a relatively high rate.² In fact, we have found it occasionally difficult to distinguish between EORA and PMR in clinical settings. For both EORA and YORA patients, treat-to-target (T2T) is necessary, though it is considered that EORA should be treated with the goal of acquiring low disease activity (LDA) from the viewpoint of side-effects of administered therapeutic drugs.

Objectives: In this study, we examined the number of drugs given to EORA and YORA patients treated for RA at our hospital who achieved LDA.

Methods: We enrolled 260 patients into the EORA (n=70) and YORA (n=190) groups, and investigated background and treatment protocols.

Results: As for background, there was a significant difference between the EORA and YORA groups for mean age, mean disease duration, and female ratio, whereas the difference was not significant in regard to anti-body positive rate, SDAI, or DAS28-CRP. In those groups, average age was 73.8 and 57.8 years, disease duration was 6.66 and 14.7 years, and female ratio was 62.9% and 83.7%, respectively. Furthermore, RF positivity was 85.3% and 80.7%, and ACPA positivity was 86.5% and 87.7%, respectively, while SDAI was 4.28 and 4.59, and DAS28-CRP was 1.99 and 2.04, respectively (Table 1). As for treatments given to the patients, the rates of prednisolone (PSL) use (37.1% vs. 36.3%), and dosage of methotrexate (MTX) (1.45 vs. 1.41 mg) and its usage rate (55.7% vs. 65.3%) were not significantly different between the groups. On the other hand, MTX weekly administration (2.89 vs. 4.09 mg, p=0.009) and biologics usage rate (32.9% vs. 56.3%, p=0.0012) were significantly lower in the EORA group (Table 2).

Table 1

	EORA	YORA
Average age (yrs)	73.8±0.75	57.8±0.91
Average Disease Duration (yrs)	6.7±0.57	14.7±0.81
Female rate (%)	62.9	83.7
RF positive rate (%)	85.3	80.7
ACPA positive rate (%)	86.5	87.7
SDAI	4.28±0.38	4.59±0.22
DAS28CRP	1.99±0.08	2.04±0.05

Table 2

	EORA	YORA
Rate of PSL use (%)	37.1	36.3
PSL amount (mg)	1.45±0.29	14.1±0.21
Rate of MTX use (%)	55.7	65.3
MTX amount (mg/W)	2.89±0.36**	4.09±0.25
Rate of bio use (%)	32.9**	56.3

** P < 0.01

Conclusion: Age of onset of RA has been increasing with the aging of society. Therefore, it is important to consider the features of EORA and YORA when considering therapy. For the present investigation, we considered the goal of treatment to be acquisition of LDA rather than