respectively. In patients with ILD, CT scan & FVC were compared at baseline & 12 months.

Results: 29 patients (seropositive 28 (RF/Anti CCP/BOTH+VE), seronegative 1) were given RTX for RA over a 2-year period of which 12 had CD19, CD20 & IgG tested. Mean SDAI reduction from baseline to 6 months post treatment was 30%, 32% & 14% while complete remission (SDAI<3.3) was attained in 100%, 18% & 20% in DMARD naïve, DMARD resistant & ILD groups, respectively. CD19, CD20 & IgG reduced from 18.6%, 18.4% & 18.53g/L to 3.7%, 3.7% & 9.7g/L respectively FVC improved from 62.4% to 67% at 12. The percentage of patients with lung involvement >20% reduced from 53.3% to 46.7%. Flare was observed in one patient who received 500mg RTX. CD19, CD20 & IgG levels increased from 7.9%, 8% & 9.8g/L to 27%, 25% & 13g/L respectively. 3 patients in the 1g group were followed up at 12, 18 & 24 months. In these patients there were no flares or worsening symptoms. 1 patient was double negative for RF & Anti CCP and this patient did not attain clinical remission even after 2 doses of 1g RTX.

Conclusion:

- [1] Patients with early arthritis (diagnosis made within 1 year) and who were DMARD naïve had an excellent response to Rituximab.
- [2] Complete remission was observed in more patients the 1g compared to 500mg group.
- [3] Reduction in CD19 & CD20 was associated with significant reduction in the SDAI score.
- [4] There was no significant reduction of CD19 & CD20 with 500mg dose of Rituximab where either a partial remission or mild flare was observed.
- [5] There was reduction in the lung involvement to less than 20%(CT) in few patients with 1g dose.
- [6] Double negative Rheumatoid arthritis poorly responded to Rituximab.
- [7] The positive effects of 1g Rituximab could be noted up to 24 months.
- [8] Flare of RA was associated with significant increase in CD19 & CD20.

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AB0236

DOWN-TITRATION STRATEGY OF TUMOR NECROSIS FACTOR-INHIBITOR AGENTS FOR RHEUMATOID ARTHRITIS IN TUNISIA

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Background: Tumor necrosis factor (TNF) blocking agents are effective in treating rheumatoid arthritis, but they are associated with several adverse effects and high costs. Some studies have assessed the effectiveness of down-titration compared with continuation of standard dose.

Objectives: The aim of our study is to assess dose tapering in Tunisia.

Methods: A retrospective study including 170 rheumatoid arthritis patients treated by TNF blocker agent and with either low disease activity or remission (ACR/EULAR criteria). Two groups were compared, in the first group (G1) the interval of TNFi administration was extended, in the second group (G2) the standard dose and rhythm of administration were maintained.

Results: The TNFi tapering group (G1) included 96 persons whereas the group having the same drug administration rhythm (G2) included 74 case. The baseline age of the down-dosing drug group was 56.6 ± 12.6 years versus 52.9 ± 11.6 years in the other group ($p = 0.046$) and the average disease duration were respectively 12.3 ± 7.2 years versus 11.2 ± 6 years ($p = 0.346$). Women represented 88.5% in G1 versus 93% in G2 ($p = 0.298$). Rheumatoid Factors and ACPA were positive respectively in (85.5% versus 83.8; $p = 0.748$) and (76.4% versus 67.8%; $p = 0.309$). Etanercept, adalimumab, certolizumab pegol and infliximab were respectively used in 84.4%, 9.4%, 4.2% and 2.1% cases (G1), whereas they were used in 48.6%, 16.2%, 27% and 8.1% cases in the second group (G2). In the TNFi down dosing group, methotrexate was associated to TNFi in 74% cases while 71.6% of patient received methotrexate in the standard rhythm of administration group ($p = 0.734$). Corticosteroids were used by 40.6% of patients in G1 vs. 56.8% of patients in G2 ($p = 0.037$). The average DAS₂₈ at baseline was 5.91 ± 0.81 (G1) versus 5.95 ± 0.80 (G2) ($p = 0.759$). There was no statistically significant difference between the two groups for rates of TNFi withdrawal ($p = 0.798$). In fact, TNFi was interrupted due to inefficacy for 17 patients (17.7%) in the down-dosing group versus 12 patients (16.2%) in the other group.

Conclusion: Our study add evidence that TNFi drugs tapering could be equivalent to maintenance strategy. This could be beneficial to decrease the risk of adverse effect or reduce costs. Further studies are needed to confirm those results and identify patients who could benefit of TNFi administration rhythm step-down.

Disclosure of Interests: None declared

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AB0237

INFECTIONS IN PATIENTS WITH RHEUMATOID ARTHRITIS TREATED WITH RITUXIMAB AND ANTI-TNF INHIBITOR

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Background: Biological therapies have significantly improved the management of rheumatoid arthritis (RA). These molecules are very effective, but are known for their specific risks, especially infectious. It depends on several factors including the type of molecule used.

Objectives: The objective of our study is to compare the rate of infection in RA patients treated with rituximab and anti-TNFα.

Methods: Prospective, observational, monocentric study. Were included RA patients (ACR / EULAR 2010 criteria) treated with rituximab and anti-TNFα (adalimumab, infliximab and Etanercept) after inadequate response to DMARDs. Demographic characteristics, comorbidities, association with methotrexate and corticosteroids were collected and compared for each group.

The number, type and severity of the infections in both cases were noted.

SPSS (Statistical Package for Social Science) was used for data analysis.

Results: 40 RA patients treated with rituximab and 31 patients who received anti-TNFα were included.

Patient characteristics and Comparison of rate of infection in RA patients between the two groups are summarized in Table 1

Table 1.

Parameters	Rituximab	Anti-TNFα	p
Number of patients	40	31	
Average age (years)	56,28	46,06	0,01
Sexratio	0,14	0,11	0,7
Average duration of evolution (years)	15,83	13,74	0,3
Patients under corticosteroid (%)	97,5	87,1	0,08
Average corticosteroid dose patients under methotrexate (%)	6,41	5,48	0,3
Diabetes (%)	37,5	45,2	0,5
Patients with infection (%)	20	16,1	0,7
Number of infections	32,5	51,6	0,1
Number of serious infections	18	24	0,4
	5	0	0,04

Conclusion: The rate of infections in patients with RA treated with rituximab or anti-TNF was similar. However, the infections observed were more serious in patients with RA treated with rituximab

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AB0238

SECOND BIOLOGICAL DMARD THERAPY IN RHEUMATOID ARTHRITIS: A RETROSPECTIVE COHORT ANALYSIS

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Background: The development of biologic disease modifying antirheumatic drugs (bDMARD) has dramatically improved the management of rheumatoid arthritis (RA). However, some patients did not respond or partially respond to biologic agents. Management of first bDMARD failure may involve another biotherapy.

Objectives: The aim of our study is to assess the efficacy of second line biologic as well as survival rates of 2nd line biotherapy in RA.

Methods: This is a retrospective study based on Tunisian data including 374 RA patients treated with biologic agent from 2014 and followed until December 2018.

Results: Tumor necrosis factor inhibitor (TNFi) was the most prescribed class as first-line therapy with 86.4% patients (Etanercept: ETA 54%; adalimumab: ADA 13.6%; certolizumab pegol: CZP 12.8% and infliximab: IFX 5.9%), IL-6 inhibitor (Tocilizumab: TCZ) and anti-CD 20 (Rituximab: RTX) were given respectively to 6.4% and 7.2% cases. The first biotherapy was discontinued for 146 patients (39%). Of these, 79 patients (21.1%) received a second bDMARD (mean age 52.6 ± 11.8 ; sex ratio = 0.12; ETA 17.7%, ADA 7.6%, CZP 41.8%, IFX 1.3%, TCZ 24.1% and RTX 7.6%). Average DAS₂₈ at second line biotherapy initiation was $5.93 \pm$

0.96. Overall survival rates of 2nd line bDMARD at 12, 24 and 36 months was respectively 91%, 76.4% and 72.1%. Among the patients receiving second biologic agent, 30.4% patients (24 cases) achieved either low disease activity (LDA) or remission. On average 38 weeks [14 – 96] were needed to reach that therapeutic target. In fact, 27.8% of the TNFi vs. 40% of the non TNFi patients achieved LDA ($p = 0.277$). Second biotherapy was withdrawn in 16.7% of the cases of TNFi group vs. 20% of the non TNFi group ($p = 0.718$). Moreover, no significant difference has emerged between the TNFi and the non-TNFi patients when comparing time to biotherapy discontinuation (15.8 months vs. 20.9; $p = 0.11$).

Conclusion: In our study, no significant difference was found between TNFi and non-TNFi switcher in RA. But, treatment strategy after first bDMARD failure is still controversial. Further studies have to be done to get the most beneficial strategy in RA.

Disclosure of Interests: None declared

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AB0239

PERSISTENCE TO BIOLOGICAL DMARDS TNF INHIBITORS VS BIOLOGICAL DMARDS NO TNF INHIBITORS AFTER FAILURE TO SYNTHETIC CONVENTIONAL DMARDS IN RA PATIENTS TREATED IN STANDARD CLINICAL PRACTICE

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Background: There are no RA response predictors for our patients. The decision to initiate a first biological depends on multiple factors such as rheumatologist experience, clinical characteristics of the patient and health system. What is clear is that the best strategy is T2T.

Objectives: To know the clinical characteristics and persistence of the first biological DMARD in patients receiving bDMARDS TNF inhibitors vs DMARDS aimed at other targets.

Methods: A observational cohort of adult RA patients (ACR/EULAR 2010) in a rheumatology department of a third-level university hospital. All patients were treated with a first bDMARD marketed in Spain, from 2010 to December 2020 and prescribed according to product data sheet. Biological drugs were divided into TNF inhibitors drugs (adalimumab, etanercept, infliximab, golimumab, certolizumab) and Other targets (abatacept, rituximab, sarilumab, tocilizumab). Clinical data, duration of treatment and EULAR response were collected from each patient. The data were analyzed with descriptive, bivariate statistics and survival analysis adjusted for age, sex, FR, erosions and duration of the disease.

Results: Data were collected from 332 patients (table 1). Patients treated with other target bDMARDS were mostly female, with higher activity, shorter disease duration, and treated without MTX. Survival graphs showed that regardless of the target chosen as first bDMARD, EULAR response rates and persistence to the drug were similar.

Table 1.

Variable	TNF inhibitors n=194	Other targets n= 138	Total n=332	p
	n (%)	n (%)	n (%)	0.02
Female	142 (73)	115 (83)	257 (77)	0.2
FR +	163 (82)	121 (88)	284 (86)	0.6
ACPA +	125 (63)	84 (61)	209 (63)	0.9
Erosions	177 (89)	80 (58)	257 (77)	0.01
Concomitant MTX	153 (77)	62 (47)	215 (65)	0.003
EULAR response				
Good	103 (77)	67 (71)	170 (75)	0.2
Moderate	24 (18)	16 (17)	40 (17)	
No	7 (5)	11 (11)	18 (8)	
Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	
Age (years)	55.7 ± 13.3	57.6 ± 11.9	56.5 ± 12.7	0.1
Evolution of RA (years)	9.6 ± 10.2	7.5 ± 7.5	8.7 ± 9.2	0.04
Persistence (months)	19.3 ± 20.5	16.07 ± 15.11	17.5 ± 18.5	0.04
DAS28VSG4V basal	5.02 ± 1.5	5.59 ± 1.03	5.25 ± 1.3	0.001
DAS28VSG4V final	2.68 ± 1.1	2.84 ± 1.4	2.7 ± 1.25	0.31

Conclusion: Patients receiving Anti-TNF vs bDMARD with other mechanisms of action have clinical differences. However, the response and persistence to the drug are similar, perhaps due to the implementation of the correct T2T strategy.

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AB0240

PREDICTORS OF RESPONSE TO BIOLOGIC AGENTS IN RHEUMATOID ARTHRITIS

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Background: In rheumatoid arthritis (RA), the 'treat-to-target' therapeutic approach imposes rigorous control of disease activity. Although biological agents have been shown to be effective, these therapies fail sometimes to achieve therapeutic goals.

Objectives: In this study we tried to determine predictive factors of good therapeutic response to biologic disease-modifying antirheumatic drugs (bDMARD).

Methods: This is a retrospective study including 374 Tunisian patients who received their first biotherapy between 2014 and 2016. Categorical variables were reported in numbers and percentages, while quantitative variables were expressed by mean with standard deviations. The univariate analysis was performed using the student t-test or the Chi2 test. Multivariate analysis was performed by binary logistic regression.

Results: Average age of our cohort was 55 ± 12.5 years with a female predominance of 87.2%. The average duration of RA was 11.7 ± 6.7 years. Rheumatoid factors were positive in 79% and ACPA were positive in 72% of cases. After the introduction of biotherapy, low disease activity (LDA) or remission was achieved in 55% of cases (206 patients).

No statistically significant difference between biotherapy responder and non-responder groups for age (55.7 vs. 54.7 years; $p = 0.44$), gender (Female: 86.5% vs. 88.7%; $p = 0.08$) and disease duration (12 years vs. 11.4 years; $p = 0.41$). A significant difference between the two groups was found for the positivity of rheumatoid factors (76.4% vs. 88.9%; $p = 0.004$), methotrexate's association (65% vs. 53.4%; $p = 0.02$) and corticosteroids' use (50% vs. 66.5%; $p < 0.001$).

Positive predictive factors of remission or LDA by biotherapy were female sex (Odds Ratio = 2.2; $p = 0.026$), presence of rheumatoid factors (Odds Ratio = 2.64; $p = 0.001$), association with methotrexate (Odds Ratio = 1.69; $p = 0.028$). Whereas, corticosteroid use (OR = 0.41; $p < 10^{-3}$) was a negative predictor of disease control by bDMARDs.

Conclusion: Achieving LDA low level or even remission is currently achievable with biological treatments. Certain factors need to be studied in order to optimize RA treatment and adapt the right bDMARD for each patient.

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