treated with a pharmaceutical product which does not necessarily have a causal relationship with this treatment". AEs were subdivided in non-infectious, infectious, infusion and hypersensitivity reactions. Infusion and hypersensitivity reactions were defined as transient AEs related to belimumab occurring within 6 hours and 6–48 hours after drug administration, respectively. AEs was defined as severe (SAE) in case of hospitalization and/or death and/or life-threatening manifestations. Infections were considered severe in case of hospitalization and/or intravenous antibiotic use and/or death. Infusion and hypersensitivity reactions were considered severe when intensive care unit support was required. As baseline predictors of discontinuation the following variables were analyzed: gender, age, age at SLE onset, disease duration, disease activity pattern (relapsing remitting or chronic active), SLEDAI-2K ≥ 10 , prednisone >7.5 mg/day, concomitant immunosuppressant, antimalarial drug use, number and type of comorbidities, number of previous organ involvement, type of major involvement and number of flares in the 12 months before belimumab initiation. Data were analyzed using the SPSS (version 23.0, Chicago, IL) software.

Results: A total of 453 EAs were recorded in 132 patients after a mean follow-up period of 17.5 ± 10.6 months (range 3–36): 443 (97.8%) were non severe and 10 (2.2%) SAEs (Table 1). No deaths and severe infusion/hypersensitivity reactions occurred. Belimumab discontinuation was observed in 58 patients (30.8%) after 10.4 ± 7.5 months of follow-up (Table 2). RR was 91.5% at 6 months, 81.4% at 12 months, 72.9% at 18 months, 72.4% at 24 months, 69.7% at 30 months and 69.2% at 36 months. No associations were found between baseline variables and drug discontinuation.

Table 1. AEs observed in 188 patients with refractory SLE treated with belimumab

	Pts with AEs (N)	Pts with AEs (%)	AEs (N)	AEs (%)
Non severe AEs	129	68.6	443	97.8
Infectious AEs	101	53.7	273	60.3
Non infectious AEs	57	30.3	84	18.5
Hypersensitivity reactions	26	13.8	81	17.9
Infusion reactions	4	2.1	5	1.1
SAEs	9	4.8	10	2.2
Infectious SAEs	1	0.5	1	0.2
Non infectious SAEs	8	4.3	9	2.0
Total	132	70.2	453	100.0

Pts: patients; AEs: adverse events; SAEs: severe adverse events.

Table 2. Reasons of discontinuation of belimumab

	Pts (N)	Pts (%)
AEs	22	37.9
Non-responder (articular/renal/cutaneous/haematological)	16	27.6
Pregnancy	8	13.8
Flare (renal/articular)	6	10.3
Lost of follow-up	4	6.9
Remission	2	3.4
Total	58	100.0

Pts: patients.

Conclusions: Belimumab demonstrated a good safety profile with a low rate of SAEs. Discontinuation occurred in less than 1/3 of subjects with a low rate of discontinuation due to AEs.

Disclosure of Interest: None declared

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AB0457 LONG-TERM EFFECTIVENESS OF TREATMENTS FOR NEUROPSYCHIATRIC MANIFESTATIONS OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Neuropsychiatric involvement of systemic lupus erythematosus (NPSLE) is one of the most deleterious complications of the disease, leading to great decrease of quality of life and poor prognosis [1]. Factors such as activity of disease have been associated NPSLE [1,2]. The current treatment of NPSLE remains mostly empiric, requiring high-dose corticosteroids and extensive immunosuppressive therapy [3,4]. Short-term efficacy of treatments in NPSLE have been evaluated by several studies, however few studies have been performed to evaluate long-term efficacy of these drugs [4].

Objectives: To compare the long-term effectiveness among drugs and associated factors in the treatment of NPSLE.

Methods: 209 patients (≥ 14 years) from a Mexican cohort from 2011 to 2017 were examined. SLE and NPSLE cases fulfilled 1997 ACR and 1999 ACR criteria respectively. Demographic factors, comorbidities and pharmacologic treatments were reviewed for patients with NPSLE. Variables were studied by bivariate, multivariate and survival analyses.

Results: Of 209 SLE patients, 37 (17.7%) had NPSLE; of them 32 were women. The mean age [standard deviation (SD)] was 38.8 (14.6) years. The mean of time at onset of SLE (SD) was 6.2 (5.4) years. SLEDAI and SLICC mean (SD) were 22.1 (10.2) and 1.83 (1.2) separately. Diffuse and

focal manifestations of NPSLE were presented in 20 and 17 cases. Central and peripheral nervous system events of NPSLE were described in 34 and 3 of patients. The NPSLE manifestations more prevalent were cerebrovascular disease (n=15), psychosis (n=8) and seizure disorders (n=5). A total of 112 cycles of treatment were analyzed [prednisone (PDN) n=30, intravenous (iv) methylprednisolone (MTP) n=23, iv cyclophosphamide (CYC) n=13, azathioprine (AZA) n=12, mycophenolate mofetil (MMF) n=11, rituximab (RTX) n=10, hydroxychloroquine (HCQ) n=9, plasmapheresis (PPH) n=2 and iv immunoglobulin (IVIg) n=2]. Cognitive dysfunction was more associated to higher SLE activity, damage and mortality. Also, psychosis was more associated to receive higher doses of oral PDN or iv MTP, to employ iv CYC and to be linked with renal SLE disease activity. On the other hand, cerebral vascular disease was more associated to receive HCQ and to have antiphospholipid antibodies. The main cause to therapy discontinuation was inefficacy and was more common in patients treated with iv CYC. Corticosteroids survival in months was higher in-group PDN <15 mg/d (97.89 ± 16.4 ; IC95% 65.8–130). AZA survival in months (90 ± 30.8 ; IC95% 29.6–150) was higher than others treatments for NPSLE and was more associated to use IVIg (OR 10.8, 95% CI 1.04–111, $p=0.04$). When the first therapy was failed, the drug as second therapy used with higher survival in months was MMF (100 ± 60.5 ; IC95% 1.6–218).

Conclusions: This study suggests that patients with diffuse manifestations and central nervous system involvement in NPSLE presented more activity, damage and mortality and therefore used more PDN, MTP and CYC. Among the treatments as first therapy for NPSLE with the better long-term efficacy was AZA and when it failed, MMF remained as better second therapy.

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 - [2] Semin Arthritis Rheum 2011;41:1–11.
 - [3] Ann Rheum Dis 2010;69(3):529–535.
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- Disclosure of Interest:** None declared
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AB0458 B CELLS DEPLETION FOR THE TREATMENT OF SYSTEMIC AUTOIMMUNE DISEASES

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Background: Systemic autoimmune diseases (SAD) have traditionally been treated with steroids and immunosuppressants, but not all patients respond to these measures.

Rituximab (RTX) has been used in several SAD with favorable results, but there are only a few reports of isolated clinical experiences, with a very small number of patients.

Data about use of this drug under conditions of daily clinical practice may be relevant.

Objectives: To describe the characteristics of patients with SAD who are candidates for treatment with RTX.

To evaluate the response to this drug in the different SAD.

Methods: Demographic data and disease, treatment and response variables were included.

We use the EULAR definitions of partial response (improvement of at least 50% of the main manifestations of the disease) and complete response (disappearance of the manifestations of the disease), because of the heterogeneity of the SAD and their multiple manifestations.

Results: We included 53 patients, 90.6% were women. The mean age at diagnosis was 31.42 ± 14.33 years; and the median duration of disease at the onset of RTX 1.99 (0–7.5) years. Patients received a median of 2 cycles (1–3 min

-1, max 12); and the median interval between cycles was 14.81 months (6–15.75, min 6, max 120).

The EAS included SLE with 23 (43.4%) cases, systemic sclerosis with 7 (13.2%) cases, Sjögren's syndrome with 6 (11.3%) cases, vasculitis with 5 (9.4%) cases, Still disease with 3 (5.7%) cases, autoimmune cytopenias with 3 (5.7%) cases, dermatomyositis with 2 (3.8%) cases, Behçet's disease with 2 (3.8%) cases, IgG4 disease with 1 (1.9%) case and sarcoidosis with 1 case (1.9%).

A partial response was observed in 27 patients (50.9%) and complete in 20 patients (37.7%). There was no response in 6 of the 53 patients (11.3%). The response by disease groups is detailed in Table 1.

SAD	Partial response	Complete response	No response
SLE (n=23)	9 (39.1%)	12 (52.2%)	2 (8.7%)
Systemic Sclerosis (n=7)	5 (71.4%)	2 (28.6%)	0
Vasculitis (n=5)	5 (100%)	0	0
Sjögren (n=6)	3 (50%)	3 (50%)	0
AI cytopenias (n=3)	1 (33.3%)	1 (33.3%)	1 (33.3%)
Dermatomyositis (n=2)	1 (50%)	1 (50%)	0
Behçet's disease (n=2)	0	0	2 (100%)
IgG4 related disease (n=1)	0	1 (100%)	0
Sarcoidosis (n=1)	1 (100%)	0	0

Conclusions: In our study, patients treated with RTX achieved response in 88.7%; similar than some experiences of RTX off-label use.

Remission of the disease occurs in 50% of the patients.

The best results are observed in SLE, especially in lupus nephritis, and Sjögren disease.

The results in SS are promising due to the limited therapeutic resources for this disease.

References:

- [1] Ramos-Casals M, García-Hernández FJ, de Ramón E, Callejas JL, Martínez-Berriotxoa A, Pallarés L, et al. Off-label use of rituximab in 196 patients with severe, refractory systemic autoimmune diseases. Clinical and experimental rheumatology 2010; 28 (4): 468–76.

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AB0459 TREATMENT OF SYSTEMIC AUTOIMMUNE DISEASES WITH RITUXIMAB: SAFETY DATA

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Background: Systemic autoimmune diseases (SAD) have traditionally been treated with steroids and immunosuppressants, but not all patients respond to this strategy. Rituximab (RTX) has been used in several SAD with favorable efficacy and safety results; there are only reports of isolated clinical experiences of small series of patients. The description of this drug safety data in daily clinical practice may be relevant.

Objectives: To describe the adverse events and the hospital admissions during the treatment of a series of patients with SAD with RTX.

Methods: Demographic data, related to disease and treatment, response and safety variables were included. We use the EULAR definitions of partial response (improvement of at least 50% of the main manifestations) and complete response (disappearance of the manifestations), because of the heterogeneity of the SAD.

Results: We included 53 patients, 90.6% were women; the mean age at diagnosis was 31.42±14.33 years; and the median duration of disease at the onset of RTX 1.99 (0–7.5) years. Patients received a median of 2 cycles (1–3; min -1, max 12); and the median interval between cycles was 14.81 months (6–15.75; min 6, max 120).

The SAD were SLE with 23 cases (43.4%), systemic sclerosis with 7 cases (13.2%), Sjögren's syndrome with 6 cases (11.3%), vasculitis with 5 cases (9.4%), Still disease with 3 cases (5.7%), autoimmune cytopenias with 3 cases (5.7%), dermatomyositis with 2 cases (3.8%), Behçet's disease with 2 cases (3.8%), IgG4 disease with 1 case (1.9%) and sarcoidosis with 1 case (1.9%).

A partial response was observed in 27 patients (50.9%) and complete in 20 patients (37.7%). There was no response in 6 of the 53 patients (11.3%).

Adverse events were detected in 15 of the 53 patients (28.3%) and 20 were hospitalized (37.7%) during the treatment with RTX (Table 1).

Infections (9)	Disease activity (8)	Others (3)
Respiratory: 7	LES: 8	Acute coronary syndrome: 1
Pyelonephritis: 1		Vertebral fracture: 1
Stomach flu: 1		Metrorrhagia: 1

Three patients developed hypogammaglobulinemia, only one of them was associated with recurrent respiratory infections and even hospitalized in one occasion. Febrile neutropenia was detected in 2 patients, and one of them required admission. Three patients were diagnosed with pneumonia and admitted for supportive and antibiotic treatment. Three other patients suffered gastroenteritis requiring admission in one of them. In two cases, low respiratory infections were repeated requiring admission on 7 occasions. There was also recurrent otitis and a severe hypersensitivity reaction.

Conclusions: The most frequent adverse event were the infectious, mainly respiratory tract infections followed by an infusion reaction. No patient developed opportunistic diseases. This findings are similar than observed in other studies on patients with SAD treated with RTX. Infusion reactions are becoming less frequent, due in part to premedication.

We are dealing with a large number of patients with refractory EAS treated with RTX, so the data obtained from this study show an acceptable safety profile.

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- [1] Ramos-Casals M, García-Hernández FJ, de Ramón E, Callejas JL, Martínez-Berriotxoa A, Pallarés L, et al. Off-label use of rituximab in 196 patients with severe, refractory systemic autoimmune diseases. Clinical and experimental rheumatology 2010;28(4):468–76.

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AB0460 USE OF INTRAVENOUS IMMUNOGLOBULIN (IVIG) IN AUTOIMMUNE RHEUMATIC DISEASES: EXPERIENCE IN A THIRD LEVEL MEDICAL CENTER

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Background: IGIV therapy in rheumatology has been used as an alternative treatment for patients with refractory, severe disease, or with contraindication to the use of conventional immunosuppressive therapy as serious infections; it has recently been increased its use to treat multiple autoimmune diseases, however with a limited number of precise indications as there are not enough studies to increase the level of evidence for the administration of IVIG

Objectives: To describe the experience gained with the use of IVIG in autoimmune rheumatic diseases in a third level medical center

Methods: This is an observational, descriptive and retrospective study. We report the use of IVIG in our clinical practice, efficacy and adverse effects. We included consecutive patients with autoimmune rheumatic diseases that received IVIG between 2012 and 2015. The information was extracted from clinical records

Results: We included 35 patients: 19 women, 16 men, 18 with systemic lupus erythematosus (SLE), 15 with autoimmune inflammatory myopathy, 1 with primary Sjögren's syndrome (SSp) and 1 with polyarteritis nodosa (PAN).

The most common indication was active disease associated with severe infection that contraindicated the use of immunosuppressants in 24 patients and in 11 patients refractory activity disease to conventional therapy. The most frequent indications in patients with SLE were: 6 thrombocytopenias, 5 lupus nephritis, 4 pulmonary hemorrhage and 3 neurolupus; of the group of inflammatory myopathy the indications were: 6 dysphagia, 5 respiratory insufficiency and 4 refractory myopathy. In patients with SSp and PAN the indication was peripheral neuropathy. The mean number of IVIG applications was 3.3 (range 1–15). Activity scales were decreased in all patients with IVIG: mean SLEDAI at baseline 15.6 and in the follow up 4.5; in inflammatory myopathies remission was reached in 86% of the cases. The steroid dose was significantly reduced in most patients in the follow up. Four patients had adverse effects associated with IGIV: 2 with tachycardia and hypertension, one with acute pulmonary edema and one with hemolytic anemia.

Conclusions: In our experience, IGIV administration was effective in controlling the activity of the autoimmune rheumatic disease, mainly in patients with concomitant infection, and with a good safety profile.

Discussion: IGIV was an effective alternative treatment in patients with contraindication of conventional treatment or in refractory disease, however it is a high cost treatment and should be used in well selected cases

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AB0461 BENEFITS OF VITAMIN D IN SLE DEPEND ON THE ORGAN SYSTEM

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Background: Low 25-OH Vitamin D is associated with SLE. Both a randomized clinical trial and a longitudinal cohort study proved that supplementation reduced SLE disease activity.

Objectives: We examined whether Vitamin D benefits in SLE are dependent on the organ system.

Methods: Vitamin D and SLEDAI components were measured at each cohort visit starting in 2010 and 16,519 visits of 1,345 different patients were included. The patients were 92% female, 50% Caucasian, 41% African American. Organ-specific disease activity was defined as a set of binary variables based on SLEDAI. If the patient received any score for any component, then the patient was defined as having that type of activity.

Interestingly, after adjustment for repeated measures and covariates, the relationship between vitamin D and immunologic disease activity totally disappeared.