

also incubated with anti-B activating factor-receptor (BAFF-R) antibodies, B-cell maturation antigen (BCMA) and transmembrane activator and calcium modulator and cyclophilin ligand (CAML) interactor (TACI), then analysed by cytofluorimetry.

The number of EPC colonies in patients was lower than in controls; moreover, colonies were poorly organised compared to controls; BLM incubation restored the structure of the colonies. After 6 hours of incubation, BLyS (20 ng/ml) induced apoptosis of EPC and EA.hy926; co-incubation with BLM inhibited the apoptotic effect. Both EPCs and EA.hy926 expressed BAFF-R (MFI=3.8 and 1.5 respectively) and BCMA (MFI=1.25 and 1.15); EPCs also express TACI (MFI=1.4).

The results of this study showed:

1. a quantitative and qualitative alteration of colonies in patients, restored after ex vivo and in vitro BLM treatment;
2. the apoptotic effect of BLyS on EPC and endothelial cells inhibit by BLM and
3. the preferential expression of BAFF-R on the surface of EPC and EA.hy926.

#### PS7:137 THE USE OF BELIMUMAB IN RECALCITRANT CUTANEOUS LUPUS: A CASE REPORT

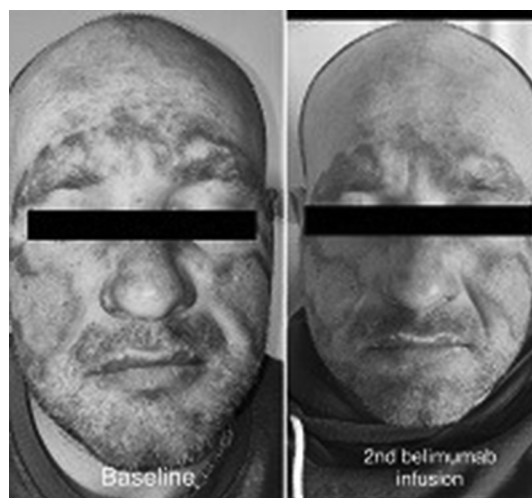
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**Background** The anti-BAFF monoclonal antibody, belimumab, was approved about five years ago by the US Food and Drug Administration for the treatment of adult SLE patients. The utility of belimumab for management of resistant systemic lupus erythematosus (SLE) has been demonstrated but concerning skin manifestations only scarce evidences have been reported. We describe our experience of using this new drug for the successful management of recalcitrant cutaneous lupus.

**Case report** A 38-year-old man with a five year history of SLE presented, in May 2017, at our outpatient clinic for a disease flare with severe cutaneous involvement. On examination the patient presented malar rash and erythematous-infiltrated discoid lesions in the region of head and neck and erythematous papules also on the extensor surface of the hands. Additional tests showed also systemic involvement by detecting low levels of C3 and C4, leukopenia (WBC 3000/ $\mu$ L) and positivity of ANA (1:1280 by IFI) and anti-dsDNA (42.8 UI/ml by ELISA, nv <30 UI/ml). SLE Disease Activity Index (SLEDAI) was 9, Cutaneous Lupus Disease Area and Severity index- activity and damage scores (CLASI) was 22 for activity and 1 for damage and Physician Global Assessment (PGA) was 8 cm. The patient failed previous treatment with HCQ, MTX, AZA, MMF and at time of our observation was taking, since December 2016, prednisone (12,5 mg daily) without improvement. Belimumab was added to concomitant steroid therapy at recommended dose (10 mg/kg). Early as 3 months after its initiation Belimumab therapy led to impressive clinical improvement in the lesions upper the hands and slighter in that in the region of head. Belimumab use also provided a significant steroid-sparing effect as well as facilitating the rapid improvement in skin symptoms and in systemic involvement.

**Conclusion** In this case report, the addition of belimumab to steroid monotherapy, in patient who failed previous



Abstract PS7:137 Figure 1

immunosuppressive treatment improved the signs and symptoms of refractory cutaneous lupus. This report highlights the utility of belimumab for the treatment of severe skin involvement in SLE refractory to conventional therapies. Additional studies should be performed to assess the use of belimumab in the treatment of cutaneous lupus.

#### PS7:138 NEW STRATEGY THERAPY FOR LUPUS NEPHRITIS WITH PERSISTENT PROTEINURIA

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**Background** Glomerulonephritis and renal failure represent one of the most life-threatening manifestations of systemic lupus erythematosus. Many patients show persistent proteinuria despite conventional therapy (anti-inflammatory and immunosuppressive therapies). Vitamin D is immune modulator thought to be a potent inhibitor of the RAAS (renin-angiotensin-aldosterone system) which increase in kidney damage. Vitamin D deficiency is common in systemic lupus erythematosus. So Correcting vitamin D deficiency may play important role for treatment lupus nephritis

**Aim** The aim of This study will detect t the potential role of high supplementation of vitamin D therapy as anti-proteinuric effects in the treatment of lupus nephritis on conventional therapy with persistent proteinuria.

**Patients and methods** Ninety patients with with lupus nephritis and persistent proteinuria despite conventional therapy will be recruited. They will be treated with vitamin D and follow up for 24 months. Proteinuria, renal function, lupus disease activity, serum and urinary inflammatory markers and urinary angiotatin will be monitored. the mean vitamin D in the patient group was 10.7+7.9 ng/ml. vitamin D supplementation depend on severity of deficient and weight of patient s. twenty five patients with lupus nephritis without vitamin D supplementation as control group.

**Results** Our results show that reduction in protinuria as measured by urinary protien creatinine (UP/C) ratio in 24 hour collection at 12 (t,0.61. p<0.001), and 24 weeks (t, 0.65. p<0.001), compared with base line, all patients completed all

24 weeks of study treatment. Improvement of median proteinuria reduction from base line was 64.2% at 12 weeks and 88% at 24 weeks. Serum vitamin D levels were inversely associated with the urinary protein creatinine UP/C ratio ( $p < 0.001$ ) and urinary vit D binding protein DBP/C ( $p < 0.001$ ).

**Conclusions** Our findings show that new strategy of adding vitamin D therapy as new treatment for 24 weeks to maintain optimal serum 25(OH) D levels and diminish proteinuria in lupus nephritis patients. We need longer duration and more studies to confirm our results from different countries.

**PS7:139 EFFICACY AND SAFETY OF RITUXIMAB IN RESISTANT SLE**

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**Objective** Rituximab is a B cell depleting monoclonal anti-CD20 antibody that has been suggested by number of research as a potential Effective agent in Resistant active SLE. however, related clinical trials; ‘Explorer’, ‘lunar’ trials both failed to show clinically significant efficacy of Rituximab compared to placebo. In this uni-centre study, we evaluated the Efficacy and safety of Rituximab in refractory SLE patients.

**Abstract PS7:139 Table 1** Characteristics of the 23 SLE patients receiving rituximab

<b>Age</b>	
mean $\pm$ SD years	28.6 $\pm$ 15.2
mean pediatric $\pm$ SD	14.3 $\pm$ 3.1
mean adult $\pm$ SD	33.7 $\pm$ 14.4
Disease duration, mean $\pm$ SD years	4.2 $\pm$ 3.8
<b>Main indication for rituximab % (n)</b>	
Renal (Lupus nephritis)	26.1 (6)
Hematological	21.7 (5)
Neuropsychiatric	30.4 (7)
Cutaneous	13.0 (3)
Lupus nephritis/ hematological (pancytopenia)	8.6 (2)
<b>Disease activity before rituximab</b>	
SLEDAI score, mean $\pm$ SD years	15.0 $\pm$ 8.8
Anti-DNA antibody, % (n)	78.3 (18)
C3, mean $\pm$ SD g/L	0.66 $\pm$ 0.34
C4, mean $\pm$ SD g/L	0.12 $\pm$ 0.09
<b>Previous immunosuppressive medications % (n)</b>	
Prednisone	91.3 (21)
Methylprednisolone	52.2 (12)
Cyclophosphamide	8.7 (2)
Azathioprine	26.1 (6)
Cyclosporine	13.0 (3)
Mycophenolate mofetil	34.8 (8)
Hydroxychloroquine	91.3 (21)
<b>Number of previous immunosuppressive agents, mean <math>\pm</math> SD</b>	
<b>Medication concomitant with rituximab % (n)</b>	
Prednisone	65.2 (15)
Cyclophosphamide	26.1 (6)
Hydroxychloroquine	91.3 (21)
IVIg	13.0 (3)
Methylprednisolone	17.4 (4)
<b>Number of immunosuppressive agents concomitant with rituximab, mean <math>\pm</math> SD</b>	
<b>Dose of prednisone, mean <math>\pm</math> SD mg/day</b>	
Before rituximab	26.2 $\pm$ 15.5
With rituximab	56.0 $\pm$ 21.3
After rituximab	14.8 $\pm$ 15.3
<b>Rituximab regimen % (n)</b>	
4 x 375 mg/m <sup>2</sup>	43.5 (10)
2 x 1 g	30.4 (7)
Others	26.1 (6)

**Method** We analysed retrospectively the data of resistant SLE patients who received Rituximab

**Results** Data included 23 refractory SLE patients that received Rituximab which was indicated for lupus nephritis 26.1%, haematological involvement 21.7%, neuropsychiatric complications 30.4%, cutaneous involvement 13.0%, and combination of lupus nephritis and haematological involvement 8.6%. Mean  $\pm$ SD of SELENA Modified version – SLEDAI score at baseline was 15.0 $\pm$ 8.8 and 9.2 $\pm$ 9.0 at 6 months after treatment ( $p$  value. 002). Among patients with lupus nephritis Complete renal response was noted in 2 (8.7%) out of 8 patients. Partial response was documented in 3 (13.0%). 3 of 7 patients with haematological involvement responded completely, 2 have responded partially the other 2 did not respond to Rituximab. 5 (21.7%) patients of 7 neuropsychiatric patients showed complete response, and no response was noted in 2 (8.7%) patients. 4 out of 5, who showed complete response undergone remission. Two non-responders eventually died. Only 3 (13.0%) patients showed cutaneous involvement. 2 of them showed partial response and remaining 1 showed complete response. Adverse effects were noted in 8 (34.8%) patients. 2 (8.7%) of them reported acute infusion reaction, 4 (17.4%) showed features of severe infection and 2 (8.7%) patients died due to septic shock and multi organ failure (table 3).

**Conclusion** Rituximab is an effective and relatively safe agent for refractory SLE, additional well-structured controlled studies are needed to prove efficacy in those patients compared to other conventional therapy.

**PS7:140 BELIMUMAB IN SYSTEMIC LUPUS ERYTHEMATOSUS. 1 YEAR OF FOLLOW UP**

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**Objectives** To describe patients with Systemic Lupus Erythematosus (SLE) treated with Belimumab (BLM).

**Material and methods** Review of patients with SLE treated with BLM from 2012 to 2017.

**Results** We enrolled 18 patients, 16 women and 2 men. The median age at of SLE diagnose was 34.3 (IQR 27–45.7) years and the median age at BLM start was 2.2 (IQR 38.9–47) years. The received sDMARDs median number was 2.5 (IQR 2–4). Before starting BLM 7 patients had received rituximab, 4 cyclophosphamide, 1 abatacept and 1 one efalizumab. At BLM begin 17 patients were taking prednisone, 13 hydroxychloroquine, 7 methotrexate, 1 azathioprine, 1 mycophenolate and 1 leflunomide (table 1).

The median BLM bolus received was 8.5 (IQR 2–32.7) and it was stopped in 4 patients due to lack of efficacy; this 4 patients had persistence of arthritis and non of them had received bDMARD before.

13 patients had at least one antiphospholipid autoantibody positive and 4 developed antiphospholipid syndrome.

The median titer of antinuclear antibodies (ANA) was 1/360 (IQR 1/160–1/1280). All patients but one had ANA positive; among them 9 patients were antiRo positive, 4 antiLa, 4 antiSm and 4 antiRNP positive antibodies. 9 patients were antiDNA positive and 5 were positive for rheumatoid factor (RF) able 1 shows SLEDAI, C3 and C4, antiDNA levels.