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 inhibited by BLM and
3. the preferential expression of BAFF–R on the surface of EPC and EA.hy926.

**Abstract PS7:137 Figure 1**

**Abstract 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 refractory 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/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 (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 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.

**Abstract 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 was to detect 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 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. Twenty five patients with lupus nephritis without vitamin D supplementation as control group.

**Results** Our results show that reduction in proteinuria as measured by urinary protein creatinine (UP/C) ratio in 24 hour collection at 12 (r=0.61, p<0.001), and 24 weeks (r=0.65, p<0.001), compared with base line, all patients completed all
Efficacy and Safety of Rituximab in Resistant SLE

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.

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 ±SD of SELENA Modified version – SLEDAI score at baseline was 15.0±8.8 and 9.2±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.