SLEDAI at active and remission phases were 4.25 vs 0.45 and 8.32 vs 1.25, respectively. Fever, rash, and arthritis were the most common features and kidney was the most common involved organ at active phase. The mean serum complement factor H and I levels at active phase were significantly lower than that at remission phase. The mean serum CD46 level at active phase was higher significantly compared with that at remission phase. The serum C5a and C5b-9 at active and remission phases were no significant difference. Five patients had sequelae including 1 intracranial haemorrhage and 4 chronic kidney disease.

Conclusions Serum complement factor H, I and CD46, but not C5a and C5b-9 were associated with disease activity of SLE.

THE ROLE OF PI3K, MTOR IN THE EXPRESSION OF INTERFERON–ALPHA INDUCED PROTEIN IFIT4 IN LUPUS

1J Chen, 2X Huang*, 1Xiang Ya Second Hospital, Department of Rheumatology, chang sha, China; 2Xiang Ya Second Hospital, Rheumatology, chang sha, China

Background and aims The role of Phosphoinositide 3-kinase (PI3K), mammalian target of rapamycin (mTOR) and dexamethasone in IFN-α-induced-human interferon-induced protein with tetratricopeptide repeats 4 (IFIT4) expression was investigated.

Methods HT1080 cells were pre-treated with specific inhibitors of PI3K/mTOR, PKC or JNK transduction factors, then further incubated with IFN-α for different times. The mRNA and protein expression of IFIT4 or other indicated signal transduction factors were detected by qRT-PCR or western-blot.

Results LY294002, a dual mTOR and PI3K inhibitor, but not wortmannin, blocked IFIT4 promoter activation, mRNA and protein, as well as phosphorylation of STAT1, JNK, PKC8 induced by IFN-α. Interestingly, rapamycin, mTOR inhibitor, had the same effects as LY294002, counteracting the IFN-α-dependent upregulation of IFIT4 and phosphorylation of STAT1, JNK, PKC8. Rottlerin or Sp600125, specific inhibitor of PKC8, JNK, inhibited IFN-induced IFIT4 expression, but not the phosphorylation of AKT and mTOR. Interestingly, in vivo, bolus intravenous injection of methylprednisolone rapidly decreased the IFIT4 expression. In vitro, dexamethasone could prohibit IFN-α-induced IFIT4 transcription and the phosphorylation of STAT1, JNK, PKC-8.

Conclusions IFN-α activate the PI3K and mTOR pathways, which converge to regulate PKC8, JNK , STAT1-dependent transcription of IFIT4 in a mTOR dependent and AKT independent manner. The induction of IFIT4 transcription by IFN-α depends upon sequential activation of mTOR, PKC8, JNK and STAT1. Steroid might play the role in treatment for systemic lupus erythematosus (SLE) partially by the reason of decreasing IFN alpha induced protein IFIT4 expression via sequential inhibition of the phosphorylation of PI3K, mTOR, PKC8, JNK, STAT1.

EFFECT OF GLUTEN CONTAINING DIET ON PRISTANE INDUCED LUPUS PRONE MICE

N Hussain*1 1University of the punjab, Microbiology and molecular genetics, Lahore, Pakistan

Background and aims SLE is a chronic autoimmune disease with characteristic organ involvement and autoantibodies production. The pathogenicity and aetiology of the disease yet to be elucidated. It is presently accepted that environmental factors trigger the disease in genetically sensitive individuals. Gluten, a protein fraction commonly found in wheat grains, associated with food related disorders and a number of autoimmune diseases. We hypothesised that gluten containing diet would further exacerbate an already undergoing arbitrary immune reaction in SLE patients.