001 Ginseoside compound K ameliorates the severity of imiquimod-induced psoriatic pathology by inhibiting REG3A/RegIIIγ in mice
Y Shi1, H Li2, H Li3 and Y Wang1,2 1 Dermatology, Shanghai Tenth People’s Hospital, Tongji University School of Medicine, Shanghai, China and 2 Institute of Poroiosis, Tongji University School of Medicine, Shanghai, China
Psoriasis is an autoimmune chronic inflammatory skin disease. Ginseoside compound K (CK) is an active ingredient of ginseng which is reported to exert beneficial effects on inflammation. However, the biological role of ginsenoside CK in psoriasis is still unclear. Our aim was to investigate the effect of ginsenoside CK on the proliferation of keratinocytes and the expression of human regenerating epidermis-derived protein 3A (REG3A) and its mouse homolog RegIIIγ as well as the inhibitory effect of ginsenoside CK on IMQ-induced psoriasis-like mice. The effect of ginsenoside CK on the proliferation of HaCaT cells and NHEK cells was measured by MTT. The apoptosis of HaCaT cells induced by ginsenoside CK was analyzed by flow cytometry. The inhibitory effect of ginsenoside CK on RAG3A induced by IL-17 in HaCaT cells was identified by WB and qRT-PCR. Psoriatic models in mice were induced by imiquimod cream. The expression of RAG3A protein stimulated by IL-36γ in HaCaT cells and NHEK cells, but it could not induce the apoptosis of HaCaT cells. The expression of RAG3A protein stimulated by IL-36γ in HaCaT cells and NHEK cells, but it could not induce the apoptosis of HaCaT cells. The expression of RAG3A protein stimulated by IL-36γ in HaCaT cells and NHEK cells, but it could not induce the apoptosis of HaCaT cells. The expression of RAG3A protein stimulated by IL-36γ in HaCaT cells and NHEK cells, but it could not induce the apoptosis of HaCaT cells. The expression of RAG3A protein stimulated by IL-36γ in HaCaT cells and NHEK cells, but it could not induce the apoptosis of HaCaT cells. The expression of RAG3A protein stimulated by IL-36γ in HaCaT cells and NHEK cells, but it could not induce the apoptosis of HaCaT cells.

002 RNA-seq analysis reveals unique transcriptome signatures in dermatomyositis with distinct autoantibodies specificities
K Tissue1, Y Cao2 and Z Zheng3 1 Dermatology, Rui Jin Hospital, Shanghai jiao Tong University School of Medicine, Shanghai, China and 2 Dermatology, Rui Jin Hospital, School of Medicine, Shanghai jiao Tong University, Shanghai, China
To elucidate the transcriptional signatures in dermatomyositis with distinct autoantibodies, we performed high throughput sequencing technologies in 27 dermatomyositis and 7 healthy volunteers. These dermatomyositis patients were segregated into three subsets based on distinct autoantibodies present in their sera. Including 10 patients that anti-melanoma differentiation associated gene 5 antibody (MDA5) positive with interstitial lung disease (ILD), and 8 patients that anti-transcription intermediary factor 1-γ antibody (TIF1-γ) positive with tumor, and 9 patients that both two antibodies are negative with neither interstitial lung disease nor tumor. We extract RNA from the peripheral blood mononuclear cells of these patients and healthy controls. BGI-qseq 500 RS was using for sequencing. Gene ontology analysis and pathway enrichment analysis revealed cytokine activity, receptor binding and protein binding molecular function were specifically dysregulated in MDA5 positive cases. Glycosyltransferase binding and antioxidant activity were specifically dysregulated in TIF1-γ positive patients. Both patient subsets were compared with antibodies negative patients. We also found different immune pathway between three subsets. Such as innate and adaptive immune system play an important role in the pathogenesis of dermatomyositis. This study has identified unique expression pattern of transcripts in DM patients. This 'sub-grouping' approach could further be useful for clinical evaluation of DM patients and designing targeted therapies.

003 A case of wong-type dermatomyositis with Anti-TIF1-γ antibody
K Xue1, L Diao1, M Chen1, X Zhu1, K Xue2 and H Cao2 1 Oncology, Rui Jin Hospital, School of medicine, Shanghai jiao Tong University; 2 Shanghai jiao Tong University School of Medicine, Shanghai, China
Anti-transcription intermediary factor 1-γ (TIF1-γ) antibody have been identified in cases with cancer-associated DM. We report the first case of positive anti-TIF1-γ antibody in Wong-type DM associated with parotid gland tumor and demonstrated the importance of detection of serum anti-TIF1-γ antibody and screening tumor in Wong-type DM. The titer of the antibody was also closely correlated with the severity of cutaneous and the prognosis of the disease. Dynamic observation of serum anti-TIF1-γ antibody levels would be helpful in predicting the course and facilitating better therapeutic targeting.

004 HRTC in accessing of interstitial lung disease in dermatomyositis with positive expression of anti-MDAS autoantibody
L Diao1, M Chen1, X Zhu1, K Xue2 and H Cao2 1 Dermatology, Rui Jin Hospital, School of Medicine, Shanghai jiao Tong University; 2 Shanghai jiao Tong University School of Medicine, Shanghai, China and 3 Respiratory, Ruijin Hospital, School of Medicine, Shanghai jiaotong University, Shanghai, China
Objective. A newly described autoantibody to a 140-kDa nuclear protein, identified as melanoma differentiation-associated gene 5 (MDA5), was closely associated with life-threatening ILD in DM. Occult lung detection by HRTC (high-resolution computed tomography) seems to be a good alternative to conventional screening of ILD. This study examined the antibody in the sera of patients with DCM and described HRTC scores and findings in patients with positive anti-MDAS antibody. Methods: We screened 79 patients with various CTDs, including 38 with DCM (22 of DM, 16 of CADM). Anti-MDAS antibody detected by enzyme-linked immunosorbent assay (ELISA) and enclosed lab data were collected. Results. The level of anti-MDAS antibody shown by the ELISA was significantly greater in the samples from patients with DM than in those from patients with classic DM (194.9 ± 377.5 vs 37.2 ± 161.1, P = 0.002). ASCP was complicated more frequently in MDAS-positive patients than in those of MDAS-negative patients (6.9% vs 0, P = 0.001). The HRTC scores of the MDAS positive subset were increased compared with those of MDAS-negative group (122.9 ± 54.8 vs 70.0 ± 59.8, P = 0.041) and correlated with anti-MDAS antibody level (r = 0.514, P = 0.012). Conclusion. Anti-MDAS antibody was found at an unusually high frequency in this group of Chinese patients. HRTC diagnosis should combine with the detection of anti-MDAS antibody, which will help us to determine the pathologic type and prognosis of patients with DCM.

005 Elucidating the mechanism(s) of silica nanoparticle induced immunomodulation in contact hypersensitivity
B Palmer1, S Phelan1 and LA DeCou2 1 Toxicology, University of Rochester, Rochester, New York, United States; 2 Dermatology, University of Rochester, Rochester, New York, United States and 3 Biomedical Engineering, University of Rochester, Rochester, New York, United States
Nanoparticle (NP) enabled consumer products and biomedical devices have become ubiquitous. Many examples exist of NP-based products in the cosmetic, sunscreen, and textile industries. While currently used as an anti-caking agent in cosmetics and foods, silica NPs have been the focus of numerous transdermal drug delivery studies, which can lead to increased dermal exposure. Research on the lungs and gastrointestinal tract have highlighted a potential immunologic dysregulation, and pruritus. Considering the oxidative stress impacts on three interactions. CA-PH (0.5 mM and 5mM) or dexamethasone (25 μM) were used to assess the effects of DNBC-induced AD-like symptoms. CA-PH alleviated DNBC-induced AD-like symptoms quantified by dermis thickness, scratch behavior, and transpalpable dermal water loss. Histopathological analysis revealed that CA-PH decreased DNBC-induced epidermal thickening, eosinophil and mast cell infiltration in dermis. We also found that CA-PH reduced serum IgE, and the mRNA levels of TSLP, interleukin (IL)-4, IL-25, IL-31, and IL-33 in the skin. This study showed that topical CA-PH could be a therapeutic option for AD.

006 Topical application of caffeoyl prolyl histidine amide suppresses 2,4-dinitrochlorobenzene-induced atopic dermatitis-like symptoms in BALB/c mice
S Jang1, J Ohn1, M Park1, O Kwon1 and J Kim1 1 Laboratory of Cutaneous Aging and Hair Research, Seoul National University Clinical Research Institute, Seoul National University Hospital, Seoul, Jongno-gu, Korea (the Republic of), 2 Institute of Human Environment, National University of Seoul (the Republic of), 3 Department of Dermatology, Seoul National University College of Medicine, Seoul, Korea (the Republic of)
Caffeoyl prolyl histidine amide suppresses 2,4-dinitrochlorobenzene-induced atopic dermatitis-like symptoms in BALB/c mice

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