ABSTRACT BOOK ABSTRACTS



A new ERA for global Dermatology 10 - 15 JUNE 2019 MILAN, ITALY

AUTOIMMUNE CONNECTIVE TISSUE DISEASES

RNA-SEQ ANALYSIS REVEALS UNIQUE TRANSCRIPTOME SIGNATURES IN DERMATOMYOSITIS WITH DISTINCT AUTOANTIBODIES SPECIFICITIES

Ke Xue⁽¹⁾ - Hua Cao⁽¹⁾ - Jie Zheng⁽¹⁾

Rui Jin Hospital Shanghai Jiao Tong University School Of Medicine, Dermatology, Shanghai, China⁽¹⁾

Abstract Objective: To investigate the transcriptional difference between dermatomyositis with distinct autoantibodies.

Materials and methods: 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(MDA-5) positive with interstitial lung disease?]ILD?], and 8 patients that anti-transcriptional intermediary factor $1-\gamma(TIF1-\gamma)$ antibody 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-seq 500 RS was using for sequencing.

Results: Gene ontology analysis and pathway enrichment analysis revealed cytokine activity, receptor binding and protein binding molecular function were specifically dysregulated in MDA5 positive patients. Glycosaminoglycan 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.

Conclusions: 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 devising targeted therapeutics.





International League of Dermatological Societies Skin Health for the World

