spleen with 4 weeks of induction therapy. The potent effect of SINE compound monotherapy on GC and auto-reactive ASC was further highlighted by the pronounced elimination of GCs histologically and reduction in auto-reactive ASC achieved after 4 weeks of maintenance therapy administered once weekly. In a concurrent study, when combined with bortezomib, 1 week verdinexor plus PI treatment resulted in a synergistic effect, significantly reducing in the number of auto-reactive ASC, particularly in the BM.

Conclusions Verdinexor has demonstrated efficacy by reducing generation and survival of auto-reactive immune cells. Additional experiments are underway to examine if inhibition of the canonical NFB pathway underlies verdinexors inhibitory effect. Together, our findings suggest the potential of SINE compounds to have a significant impact on SLE disease progression alone or in combination with currently utilized PIs.

Funding Source(s): NIH R44 AI124949-03

229 CLINICAL CHARACTERISTICS OF SYSTEMIC LUPUS ERYTHEMATOSUS WITH MALIGNANT TUMORS

Honglian Yu. *Shuangyi Campus of Ningxia Medical University*

10.1136/lupus-2019-lsm.229

Background Rheumatic disease is caused by immune abnormality, which results in the immune response of the body to auto-antigens and causes tissue damage. The immune system eliminates or inhibits the growth of tumor cells through various ways. When the immune function abnormality leads to the escape of immune surveillance of tumor cells, it can lead to tumorigenesis. The risk of malignant tumors is higher than ordinary people in systemic lupus erythematosus (SLE) patients, which were mainly hematological tumors, especially non-Hodgkin lymphoma. The risk of Hodgkin lymphoma, leukemia and multiple myeloma was also increased, which was associated with BAFF changes, APRIL signal transduction, increased IL-6 activity and EB virus infection. Increased risk of malignant tumors in SLE patients, including lung cancer, hepatobiliary cancer, thyroid cancer, vulvar/vaginal malignancies and cervical dysplasia, was also reported, which was associated with SLE disease activity in specific organs, inflammatory stimulation, oxidative damage, changes in viral clearance and/or specific drug use.

Methods Twenty SLE patients with malignant tumors admitted to the General Hospital of Ningxia Medical University from October 2008 to October 2018 were selected. Their sex, age, time of diagnosis of rheumatism and tumors, types of tumors, clinical stages and prognosis were summarized and analyzed.

Results Malignant tumors occurred in 20 (0.50%) of 3970 SLE patients, the average age was 54.43 ± 7.95 . There were 4 cases of lung cancer, 3 cases of non-Hodgkin lymphoma and liver cancer, 2 cases of thyroid cancer, uterine cancer and skin cancer. Multiple myeloma, gastric cancer, pancreatic cancer and nasopharyngeal carcinoma were found in 1 case respectively. The median course of malignant tumors in SLE patients was 3.42 years. 79.41% of the patients were diagnosed before tumors, 16.35% of the cases occurred at the same time, and only 4.24% of tumors were diagnosed before SLE. Phase IV was the most common clinical stage in the diagnosis of tumors, accounting for 59.74%. In SLE

patients with tumors, the survival time ranged from 1 month to 39 months, with a median survival time of 9.2 months.

Conclusions Most malignant tumors are found after SLE diagnosis, with a median course of 3.42 years, and occur more frequently between the ages of 50 and 60. SLE may be associated with various types of malignant tumors, lung cancer, non-Hodgkin's lymphoma and liver cancer were the most common tumors, and the clinical staging of tumors is late and the prognosis is poor, with the median survival time is 9.2 months.

Funding Source(s): None

230 SYSTEMIC LUPUS ERYTHEMATOSUS AND RAPIDLY PROGRESSIVE CARDIOGENIC SHOCK

Anam Umar*, Eric Chang, Muhammad Bilal, Cinnamon Bradley. *Morehouse School of Medicine*

10.1136/lupus-2019-lsm.230

Background Symptomatic lupus myocarditis is a rare but life-threatening complication of systemic lupus erythematosus (SLE). Clinical manifestation is variable and includes dyspnea, chest pain, peripheral edema, fever, nausea, vomiting, or palpitations. We describe a case of a young female who developed rapid progressive cardiogenic shock secondary to lupus myocarditis.

Methods Not applicable as it is a clinical vignette.

The abstract for clinical vignette is attached as a separate document

Results Not applicable as it is a clinical vignette

The abstract for clinical vignette is attached as a separate document

Conclusions The diagnosis of lupus myocarditis is usually achieved clinically and with the use of TTE, cardiac MRI or biopsy. However, none of the current diagnostic modalities have established sensitivity or specificity. Our patient only developed significant TTE findings during the late stage, which led to an unfortunate delay in diagnosis. We suggest that physicians should always have a broad differential diagnosis and high clinical suspicion to avoid late diagnosis and mismanagement of patients, especially when dealing with cardiac manifestations of SLE.

Funding Source(s): None

231 tRNA DERIVED FRAGMENTS (tRFs) REGULATE OXIDATIVE PHOSPHORYLATION TO PARTICIPATE IN SLE PATHOGENESIS

¹Guannan Geng, ²Huijing Wang*, ³Shuang Ye. ¹Renji Hospital, South campus, School of Medicine, Shanghai Jiao Tong University; ²Department of Rheumatology, South Campus, Renji Hospital, School of Medicine, Shanghai Jiaotong University, Shanghai, China; ³Department of Rheumatology, South Campus, Ren Ji Hospital, School of Medicine, Shanghai Jiao Tong University

10.1136/lupus-2019-lsm.231

Background tRNA derived fragments (tRFs) are 18 to 40-nucleotide (nt) small RNAs cleaved from mature tRNAs or precursor tRNA transcripts. There is growing evidence that tRFs play important roles in cellular homeostasis. This study focused on abnormal expression of tRFs in CD4⁺T lymphocytes from SLE patients, their function on