## **Abstract**

Systemic lupus erythematosus (SLE) is an auto immune connective tissue disorder that can involve any organ in the body. American college of Rheumatology criteria (ACR) include autoimmune hemolytic anemia with reticulocytosis as one of the criteria in the diagnosis of SLE. Anti-erythrocyte antibodies in SLE are mainly warm-type IgG.

We present a case of systemic lupus erythematosus presenting with immune mediated Coombs negative hemolytic anemia. This case highlights the possibility of autoimmune hemolysis occurring with a negative Coombs test, where the autoantibody levels are very low to be detected by a conventional direct antiglobulin test. (DAT)

A 49-year-old previously healthy woman, presented with yellowish discoloration of eyes and passage of dark colored urine for 3 days. She denied pale stools, steatorrhea or body itching. She complained of mild fever associated with generalized body aches for the last 3 days. Since the third day of the illness, she complained of shortness of breath on exertion of NYHA class II. Over the last 6months she had experienced an inflammatory type non deforming symmetricalpolyarthritis involving the small joints of the hands and non-scarring alopecia. Examination revealed an averagely built female, who was pale with a mild tingeof icterus. She did not have any evidence of active synovitis or lymphadenopathy. She had mild hepatomegaly with a smooth surface measuring 3cm below the subcostal margin, but no splenomegaly. Restof the examination was normal.

Upon investigations she was found to have a normochromic normocytic anemiawith a mild thrombocytopenia and absolute lymphopenia. Her inflammatorymarkers including CRP and ESR were elevated. Blood picture revealedpolychromasia, reticulocytosis with spherocytes which supported an ongoingextravascular hemolysis. Other biochemical parameters were also supportive of anongoing hemolytic anemia. Her abdominal ultrasound showed a mildhepatomegaly. Direct Coombs test was negative. Further testing with gel cardmethod revealed warm IgG type auto-antibodies. She tested positive for ANA andDS-DNA, and the diagnosis of Systemic lupus erythematosus with autoimmunehemolytic anemia was made. She was pulsed with intravenous methyl-prednisolone for 3 days and converted to oral prednisolone 1mg/kg. She had adramatic recovery without blood transfusions along with the improvement in herhyperbilirubinemia, hemoglobin and LDH levels.