Systemic lupus erythematosus is a chronic multisystem autoimmune disorder affecting mainly young women during childbearing years. There is risk of cervical dysplasia in patients with Systemic lupus erythematosus.

Objectives
To assess the frequency of cervical dysplasia in a sample of Iraqi women with Systemic lupus erythematosus and the relationship between results of Pap smear with human papilloma virus DNA test and clinical parameters such as disease activity, disease duration and use of immunosuppressant drugs.

Patients and methods
A case control study was conducted on 55 adult Iraqi women with Systemic lupus erythematosus and 55 healthy controls. Full history was taken and complete physical examination was done for individuals in both groups. Data were collected for both groups [age, body mass index, parity and abortion, age at marriage, educational status, smoking, and contraception and history sexual transmitted diseases]. Patient's baseline characteristic [disease duration, disease activity, family history of autoimmune disease and drugs history (past and present)] were recorded. All women were examined by gynecologist. Pap smears (conventional, liquid-base) and human papilloma virus PCR test were done to them. Blood sample was obtained for measurement of hemoglobin, white blood cells (total and differential count), platelets, anti-nuclear antibody, anti-dsDNA antibodies, complements components, antiphospholipid antibodies, hepatitis Bs antigen, anti- hepatitis C antibody, human immunodeficiency virus and VDRL test. Urine examination was done for measurement of protein, white blood cells, red blood cells and cellular casts.

Results
Patients with systemic lupus erythematosus showed more likely to have abnormal Pap smear than control (P=0.022), giving frequency of
cervical dysplasia 9.1% among the systemic lupus erythematosus patients. Human papilloma virus infection was found in only 2 patients (3.6%) and none of the controls, with no statistically significant difference between both studied groups (P>0.15) and those had higher risk for CIN1 (p=0.001). patients with systemic lupus erythematosus were 2.1 fold more likely to have abnormal Pap smear results than controls. Systemic lupus erythematosus patients with positive findings had higher mean systemic lupus erythematosus disease activity index compared to those with normal pap smears, the 5 patients with CIN1(mild dyskaryosis) had the highest disease activity, the higher mean systemic lupus erythematosus disease activity index was reported in those 5 patients (P=0.030) and longer disease duration (P=0.027). There's no significant correlation neither with the dose nor with the duration of use of immunosuppressant medications and Pap smear findings (P> 0.05).

Conclusions

The frequency of cervical dysplasia was higher in systemic lupus erythematosus patients than controls. Patients with systemic lupus erythematosus were more likely to have abnormal Pap smear findings which significantly and directly associated with disease duration and disease activity than controls. Human papilloma virus was more frequent in systemic lupus erythematosus patients than controls and those had higher risk for cervical dysplasia. Steroids and hydroxychloroquine were obviously associated with higher proportion of CIN1 in patients with systemic lupus erythematosus.