Title: Critically ill systemic lupus erythematosus patients referred to the intensive care unit of Fayoum University Hospital: frequency of complications and outcome

Abstract:

Aim of the work: To determine the frequency of critical complications of systemic lupus erythematosus (SLE) admitted to the intensive care unit (ICU), study the risk factors and outcome. Patients and methods: Fifty SLE patients consequently admitted to the ICU were prospectively studied. The SLE Disease Activity Index (SLEDAI) was assessed. Results: The mean age of the patients was 29.3 ± 8.7 years; they were 42 females (84%) and disease duration of 4.9 ± 3.4 years. The overall mortality was 24% (12 patients) and tended to be higher in males (37.5% vs 21.5%). The commonest causes of death were infection (p < 0.001) and pulmonary complications (p = 0.04) in all non-survivors. Metabolic acidosis was significantly increased in deceased patients (75%) compared to survivors (23.7%) (p = 0.003). Cardiac and CNS complications were significantly increased in non-survivors (p = 0.04 and p = 0.03 respectively). Acute renal failure was significantly more frequent in mortality case 9/12 compared to survivors (28.9%) (p = 0.007) as well as abnormal arterial blood gases (100% vs 57.9%; p = 0.005). The SLEDAI was significantly increased in non-survivors (41.8 ± 8.2) compared to survivors (21.4 ± 5.1) (p = 0.001). There was a significant correlation between mortality and SLEDAI (r = 0.58, p = 0.001) and inversely with the pH (r = 0.38), (p = 0.01). On multiple regression, only increasing SLEDAI was a significant predictor of mortality (b0.26, OR 1.29, 95%CI 1.12–1.49; p < 0.0001). Mortality prediction by SLEDAI showed at a cut-off of 28.5; sensitivity 84% and specificity 90% (p = 0.001). Conclusion: SLE patients admitted to the ICU are at an increased risk of mortality especially those with high disease activity. The main causes of mortality were infection, respiratory, cardiac and neurological complications.