TIME TO RECOVERY OF INDIVIDUAL LUPUS MANIFESTATIONS ON STANDARD OF CARE TREATMENT

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Background Musculoskeletal, dermal and renal systems are the most commonly represented systems in lupus clinical trials. Thus, it is very important to study the time to recovery in each individual system on standard of care treatment in longitudinal studies of lupus patients. The objective of this study was to compare the time to recovery in individual lupus manifestations on standard of care treatment.

Materials and methods Consecutive lupus patients with active disease (SLEDAI-2K ≥6 at first visit) who attended the Lupus Clinic between 2000 and 2012 were studied. The analysis was conducted on patients who had: 1) At least 1 of the following 3 systems active by SLEDAI-2K criteria – renal (proteinuria), musculoskeletal (arthritis) or dermal (mucosal ulcers, rash and/or alopecia) and 2) started or increased prednisone therapy. All patients had to have at least one-year follow-up.

The analysis was focused on the group of patients who improved their disease activity which is defined as a decrease in SLEDAI-2K by ≥4. Time to recovery in each individual system among these patients was determined using the Kaplan-Meier curves.

Results 158 patients fulfilled the inclusion criteria and were further studied. Of the 158 patients and at the last visit (9–12 months), 109 (69%) patients showed overall improvement and they were further studied. In 109 patients, at first visit, musculoskeletal system was present in 48 patients, renal (proteinuria) in 42 patients and dermal in 48 patients.

Time to improvement in individual lupus manifestations (Figure 1)

-**Arthritis** 50% of the patients recovered by 3 months (95% CI: 3–6 months) and at 12 months, 45 out of 48 (94%) recovered. 3 patients did not recover by the last visit.

-**Dermal system** 50% of the patients recovered by 6 months (95% CI: 3–12 months) and at 12 months 33 out of 48 (69%) patients recovered. 15 patients did not recover at the last visit.

-**Renal (proteinuria)** 48% improved by 12 months (95% CI: 9–12 months). 22 patients did not recover proteinuria at the last visit.

Conclusions The time to recovery of individual lupus manifestations on standard of care therapy varies among organ systems. Arthritis was the fastest to recover followed by the mucocutaneous manifestations and then proteinuria. These facts should be taken into consideration when determining the length of clinical trials with new agents.