Abstracts

CS-37 PREVALENCE OF COGNITIVE IMPAIRMENT IN SYSTEMIC LUPUS ERYTHEMATOSUS ASSESSED BY A COMPREHENSIVE NEUROPSYCHOLOGICAL BATTERY

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Background Cognitive impairment (CI) is a common neurobehavioural manifestation of systemic lupus erythematosus (SLE). In our recent systematic review, the prevalence of CI was 38% (95% CI 33% to 43%) with a wide variation (15%–79%), which may be due to differences in CI definitions and selection of neuropsychological tests across studies. We aim to report the prevalence of CI in a large cohort using a comprehensive battery (CB) of tests in which we operationalized the classification of CI.

Methods Consecutive consenting SLE patients, aged 18–65 years, who attended a single center (Jul 2016-Feb 2018) were recruited. Patients were administered a CB that evaluates the major cognitive domains: Manual motor speed and dexterity, simple attention and processing speed, visual-spatial construction, verbal fluency, learning and memory (visuospatial and memory), executive functioning (untimed and timed).

Patient scores were compared to a normative sample of age- and gender-matched healthy controls to obtain z-scores. CI was operationalized on the CB as a z-score of ≤−1.5 (as compared to controls) on ≥2 domains or ≤−2.0 on ≥1 domain. Descriptive statistics were used.

Results Of the 199 patients (89% female), the mean age at SLE diagnosis was 28.3±10.4 and disease duration at enrolment was 14.3±10.2 years. The prevalence of CI was 37.7% (z<–1.5 in ≥2 domains) and 49.8% (z<–2.0 in ≥1 domains).

Prevalence of patients with domain z-scores of ≤−1.5 and ≤−2.0 varied from 3.0%–46.2% and 0.5%–25.1% respectively (figure 1). The most affected domain was learning and memory (visuospatial and memory) in 92 (46.2%) patients based on z<–1.5 on ≥2 subs tests and 50 (25.1%) patients based on z<–2.0 in ≥1 sub test.

Conclusion Prevalence of CI using our CB ranged between 37.7%–49.8% (z<–1.5 in ≥2 domains and z<–2.0 in ≥1 domains respectively), which was higher than the pooled prevalence from previous reports of 38%. These differences in CI prevalence across studies could be attributed to different factors including the heterogeneity in patients’ demographics/comorbidities, sample size, the use of different metrics to determine CI, and the lack of a standardized definition of CI. Further studies are required to identify the best definition for CI and its metrics.

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