POS1430

EPIDEMIOLOGY OF LUPUS NEPHRITIS IN BRAZIL: FINDINGS FROM THE MACUNÁIMA STUDY - A NATIONWIDE MULTICENTRIC STUDY

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Background: Lupus nephritis (LN) is one of the most serious organic manifestations of systemic lupus erythematosus (SLE). Ethnicity can contribute to disparities in the prevalence and disease activity of LN.

Objectives: To assess the prevalence of LN in Brazilian patients with SLE and to determine factors associated with LN activity across the country.

Methods: This cross-sectional study (GSK Study 207353) was carried out through face-to-face interviews and review of medical records (12-month study period). Adult patients with SLE (American College of Rheumatology [ACR] criteria, 1997) were included. Five SLE reference teaching centres were selected: North (NO), Northeast (NE), Midwest (CO), Southeast (SE), and South (SU). Patients with another disease whose morbidity surpassed SLE were excluded. LN was defined as reported in the medical record or history of confirmed renal biopsy; disease activity by pre-defined changes in SLE Disease Activity Index (SLEDAI) or the patient's kidney disease during the study. Activity was assessed during (T0), 6 months before (T6), and 12 months before (T12) the interview. Systemic Lupus International Collaborating Clinics/ACR Damage Index score mapped damage accrual. Two pairings were performed, aiming to discriminate factors associated with LN and its activity, respectively. Matching technique was used to select similar individuals based on propensity scores, obtained from a logistic regression model. A bootstrapping method explored characteristic variables associated with the risk of progressing to LN.

Results: Overall, 300 Brazilian patients with SLE were included in the study. Two groups were paired: LN group (N=150) and non-LN group (N = 141). The prevalence of LN in the paired sample (N=291) was 51.5%, with a disparity between centres ($p<0.001$; Figure 1A). Most patients were female (LN: 92.7%; non-LN: 94.3%) and the mean (standard deviation [SD]) age for the LN and non-LN groups was 39.46 (11.86) and 43.96 (12.18), respectively. History of serositis was associated with the presence of LN (42 [28.0%] vs 21 [14.9%] non-LN; $p=0.010$). Type IV histological class predominated in both groups, with no disparity between centres. Social disparities were noted between groups. Non-active workers prevailed among the LN group (115 [76.7%] vs 98 [69.5%] for non-LN, $p=0.024$).

When pairing for disease activity at T12, 73 (50.3%) patients with LN (N=145) had active disease. There was regional disparity in terms of disease activity (Figure 1B), with a predominance of active LN in the NO (28 [68.3%]) and SU (16 [55.2%], $p=0.026$). Type IV histological class was the component most associated with active LN (active: 32 [43.8%]; non-active: 11 [15.3%], $p<0.001$). Variation in SLEDAI during the study period discriminated between active and non-active LN. The mean (SD) SLEDAI score at T12 was substantially higher in those with active LN compared with non-active LN (7.18 [4.83] vs 2.47 [4.63], $p<0.001$). As for the pattern of care, corticosteroids users prevailed in those with active LN (62 [84.9%] vs 45 [62.5%] for non-active LN, $p=0.004$). There was no disparity in the use of immunosuppressants, with the exception of cyclophosphamide use, noted among 16 (21.9%) patients with active LN and 6 (8.3%) patients with non-active LN ($p=0.041$). Psychotropic or anticonvulsant use was higher in patients with non-active LN (32 [44.4%] vs 17 [23.3%] patients with active LN, $p=0.012$). Consultation with a neurologist was verified in 15 (20.8%) patients with non-active LN and 6 (8.2%) with active LN ($p=0.055$). Hospitalisation occurred in 17 patients with non-active (23.6%) and active (23.3%) LN.

Conclusion: Disparities in the prevalence of LN and its activity were evident between the regions across Brazil, highlighting differences in clinical factors, regional factors, and patterns of care.

Funding: GSK

Figure 1. Prevalence of A) LN among regional centres, comparing them to disease activity profile and prescriptive practice, and B) Active and non-active LN according to prescriptive practice CQ, chloroquine; HCQ, hydroxychloroquine*At T12

Acknowledgements: Medical writing assistance was provided by Helen Taylor, Fishawack Indicia Ltd., UK, part of Fishawack Health, and was funded by GSK.

Disclosure of Interests: Mirhelen Abreu Grant/research support from: GSK, Amgen, Biogen, Libbs, Odilei Monticeli Speakers bureau: GSK, AbbVie, UCB, Roche, Novartis, Consultant of: GSK, AbbVie, Janssen, Vander Fernandes Speakers bureau: Janssen, Novartis, Roche, AbbVie, Pfizer, Grant/research support from: Novartis, GSK, Pfizer, Alexandre Cristovão Maiorano: None declared, Fernando dos Santos Beserra: None declared, Flavia Lamarao Employee of: GSK, Nathalie David Shareholder of: GSK, Employee of: GSK, Bruna de Veras Employee of: GSK, Blanca Bica: None declared, Domingos Sávio Nunes de Lima Grant/research support from: GSK, Marta Maria das Chagas Medeiros: None declared

DOI: 10.1136/annrheumdis-2021-eular.2336

POS1431

THE ASSOCIATION OF CLINICAL AND STRUCTURAL KNEE OSTEOARTHRITIS WITH PHYSICAL ACTIVITY IN THE MIDDLE-AGED POPULATION: THE NEO STUDY

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Background: Lack of physical activity in individuals with knee OA has shown to be associated with increased cardiovascular risk and mortality. Consequently, physical activity is a potential target for interventions in knee OA. However, most of the available studies concerning physical activity in individuals with knee OA were performed in relatively old populations with an inactive lifestyle. It is unclear