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LOW BIRTH WEIGHT OF PREGNANCIES OF MOTHERS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN A TERTIARY HOSPITAL

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BACKGROUND

Systemic lupus erythematosus (SLE) is an autoimmune disease that has a variable clinical picture and a remitting-recurrent character. It can reach a female:male ratio of up to 13:1, affecting negatively maternal reproductive aspect, as disease exacerbation occurs in up to 60% of pregnancies. Low birth weight (LBW) is defined as weight less than 2.500 g at birth, the proportion of LBW in Brazil between 2003 and 2018 was 8.3%. The objectives of the present research were to describe the prevalence and incidence of disease activity (DA) of pregnancies of mothers diagnosed with SLE six month before pregnancy (6MBP), at moment pregnancy was noted in follow-up (MPN) and during pregnancy (DP), to compare the proportion of LBW in the sample, and to verify whether there is correlation between disease activity and LBW.

MATERIALS AND METHODS

A descriptive cross-sectional study was performed in a rheumatology service of a tertiary hospital that follows about 800 patients with SLE being approximately 700 female patients. The patients who had at least one pregnancy from January 2003 until December 2019, were in regular follow-up and had a born alive infant were included. Patients unable to provide data about the birth weight were excluded; categorical variable was correlated using the Fisher's exact test and the proportions were tested using Binomial test.

RESULTS

Seventy-four patients were included with 95 pregnancies; the mean age at pregnancy was 27.9 years, standard deviation (SD) 5.3 years; the mean disease length was 6.2 years SD 3.9 years. Thirty-six patients (48.6%) had disease activity 6MBP, 26 (35.1%) at MPN and 49 (66.2%) in any moment DP. From 59 patients were not active before pregnancy, eight (13.5%) became active at MPN and 21 (35.5%) in any moment DP (Fig. 1). There was low birth weight in 26 (27.4%) of pregnancies and the proportion of LBW was significantly higher than general one (27.4 vs. 8.3%, $p < 0.001$, OR = 4.17, 95% CI = 3.02-5.43) (Fig. 2). There was association between disease activity 6MBP and LBW ($p = 0.014$, OR = 3.11, 95% CI = 1.23-7.91); at MPN ($p = 0.001$, OR = 5.5, 95% CI = 2.06-14.9); there was no correlation between DA any moment DP and low birth weight ($p = 0.077$, OR = 2.18, 95% CI = 0.86-5.57).

Figure 1. Distribution of frequency of disease activity by period related to pregnancy.

Figure 2. Frequency of low birth weight in 95 pregnancies from 74 patients.

CONCLUSION

These results allowed us to conclude that there was a higher proportion of LBW in our sample than in general population and disease activity six months before and at moment pregnancy was noted in follow-up, were risk factors to LBW, but not activity during pregnancy.