(S44) IS MULTIPARIETY PROTECTIVE IN MULTIPLE SCLEROSIS?
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Background: Multiple sclerosis (MS) is an immune-mediated disease of the central nervous system (CNS) with underlying mechanisms of CNS demyelination and inflammation. Pregnancy seems to be associated with a dampened immune response; thus MS patients often enjoy a stabilization of the MS disease process during pregnancy. The first 3 postpartum months, however, may bring an increased MS exacerbation rate for uncertain reasons. Objectives: We examined effects of multiparity (defined as two or more full-term births) on MS progression to determine whether it confers a neuroprotective effect and lower Estimated Disability Status Scale (EDSS) score compared with fewer full-term births. Methods: Electronic medical records were gathered with the ICD-9 Code 340, “multiple sclerosis,” for the purpose of retrospective review. Thirty of 153 charts were found to contain necessary documentation to be included in the review study. Age at diagnosis, number of children born before and after diagnosis, and EDSS score at last examination were recorded. Each parity group then had average age at MS onset as well as average EDSS score calculated and compared with those of other parity groups. Results: The average age at MS diagnosis of those patients with no children born prior to diagnosis was 32.4 years; with one child born prior to diagnosis was 39.8 years; with two children born prior to diagnosis was 47.6 years; and with more than two children born prior to diagnosis was 50.3 years. Analysis of variance (ANOVA) comparing ages at diagnosis revealed statistically significant differences between the parity groups, with an F score of 4.727 and a P value of .010. The average EDSS scores for the parity groups were then compared, but ANOVA testing revealed no statistically significant differences between scores. Conclusions: Patients with more children were diagnosed later in life than those with fewer children. This could indicate a less aggressive form of MS or a delay in diagnosis due to less clinically evident disease, possibly due to a cumulative protective effect of multiple pregnancies. A lower EDSS score was noted in those women with more children, but the differences among groups were not statistically significant and may reflect small sample size. Prospective, long-term studies would help further delineate the impact of multiple pregnancies on the disease course of MS.

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