Children's Hospital of Philadelphia PolicyLab

Depression and anxiety and their association with healthcare utilization in pediatric lupus and mixed connective tissue disease patients: a cross-sectional study

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BACKGROUND: Depression and anxiety adversely affects outcomes in systemic lupus erythematosus (SLE) and healthcare utilization is high for pediatric SLE. We aimed to characterize the prevalence of depression and anxiety in pediatric SLE, and their association with healthcare utilization.

METHODS: We conducted a cross-sectional analysis of pediatric SLE and mixed connective tissue disease (MCTD) subjects and healthy controls aged 8 years and above. We used the Patient Health Questionnaire 9 (PHQ-9) and the Screen for Childhood Anxiety Related Disorders (SCARED) to identify depression, suicidal ideation and anxiety symptoms, respectively. We compared symptom prevalence in SLE/MCTD and healthy subjects using logistic regression. For SLE/MCTD subjects, we calculated the rate of annual outpatient visits [rheumatology/nephrology, primary care provider (PCP) and emergency department], hospitalizations and rheumatology/nephrology telephone consultations in the preceding year. We compared these outcomes in those with and without depression and anxiety using negative binomial regression.

RESULTS: We identified depression symptoms in 10 (20%) SLE/MCTD and 4 (8%) healthy subjects, representing a trend towards increased prevalence in unadjusted analysis (OR = 2.9, 95%CI 0.8-9.9, p = 0.09). Adjusted analysis did not show a significant difference; however, non-white race was a statistically significant independent risk factor for depression symptoms compared to white race (OR = 5.4, 95%CI 1.1-27.2, p = 0.04). We identified anxiety symptoms in 11 (22%) SLE/MCTD and 13 (26%) healthy subjects, which was not statistically different. Suicidal ideation was present in 7 (14%) SLE/MCTD and 2 (4%) healthy subjects, which was a statistically significant difference (OR = 5.4, 95%CI 1.02-28.3, p = 0.047). Of the 34% of SLE/MCTD subjects with any symptoms, only 24% had previous mental health care. Those with depression symptoms had a statistically significant lower rate of visits to the PCP (IRR = 0.38, 95%CI 0.19-0.76, p < 0.001). Anxiety symptoms were not associated with the healthcare utilization outcomes.

CONCLUSIONS: Depression and anxiety symptoms were prevalent, and suicidal ideation significantly more common in SLE/MCTD than in healthy subjects. Non-white race was an independent risk factor for depression. Despite prevalent symptoms, there were poor rates of prior mental health treatment, and less frequent PCP visits among those with depression symptoms. Further investigation of barriers to mental health care and interventional strategies for symptomatic youth with SLE/MCTD is needed.

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