Introduction

• Congenital adrenal hyperplasia (CAH) due to 21-hydroxylase deficiency is characterized by impaired cortisol synthesis and disruption in the hypothalamic pituitary adrenal (HPA) axis leading to excessive adrenal androgen production (Figure 1).[1]
• Treatment requires lifelong glucocorticoid replacement.
• Patients with CAH fluctuate between hypercortisolemia and depression due to cortisol production imbalances of the hypothalamic pituitary adrenal (HPA) axis dysfunction is strongly associated with major depressive disorder in adults, and HPA axis dysfunction is strongly associated with chronic and life limiting medical conditions.[2]

Methods

• We used the Treatment Pathways® interface to analyze health insurance claims data in the IBM® MarketScan® Commercial Databases.

Results

• The study period prevalence of CAH was 1/11,660 (n=1,056).
• There was a higher unadjusted prevalence of depression among those with CAH (7.8%, n=82) as compared to their peers without CAH (4.9%, n=607,692).

• After stratifying by age group, the prevalence of depression was higher across all ages among those with CAH as compared to those without CAH, however this difference only reached statistical significance in the older adolescent and young adult group (ages 18-25 years old).

Conclusions

• Several prior studies of children or adults with CAH have reported mixed results regarding the risk for depression.[3-5]
• We used a large administrative sample of privately insured children and young adults in the United States to identify depression cases among those with and without CAH.
• Our study prevalence for CAH was comparable to other population studies in the United States.[6-7]
• The prevalence of depression among the general population in our study was also similar to national survey-based studies in the United States.[8]
• Our findings are also consistent with other studies that have found a higher prevalence of depression among children and adults with chronic and life limiting medical conditions.[9]
• Our findings are limited by the smaller sample size of subjects who met criteria for CAH.
• Enhanced screening for symptoms of depression among the pediatric and young adult population with CAH in the United States might be warranted, if these associations are confirmed in further research.

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• MarketScan data are licensed by IBM® to the Centers for Disease Control and Prevention (CDC) for public health use by CDC researchers. The findings and conclusions in this report do not necessarily reflect the official position of the CDC.

References


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