

**Association of Pregnancy to Nocturia: Findings from the National Health and Nutrition Examination Survey**

**Purpose:** The purpose of this study was to determine the impact of pregnancy and pregnancy-associated characteristics on nocturia.

**Methods:** Using the National Health and Nutrition Examination Survey (NHANES) database from 2005/06-2017/18, we sorted women who completed the “Reproductive Health” and “Kidney Conditions-Urology” questionnaires into 3 groups: nulligravida, previously pregnant (non-pregnant females with prior pregnancies), and currently pregnant. Using a case-control design, we matched for age, race, BMI, and number of prior pregnancies. Patients with conditions associated with nocturia were excluded. Binary logistic regression was used to assess the relationship of pregnancy and pregnancy-associated characteristics (gestational diabetes (GDM), history of multiple pregnancies, and trimesters) to nocturia ( $\geq 2$  nocturnal voids). ANOVA with post-hoc Games-Howell was used to compare mean number of nighttime voids.

**Results:** 1,544 females (523 nulligravida, 498 previously pregnant, and 523 currently pregnant) were analyzed. Currently pregnant females had a higher prevalence of nocturia than previously pregnant and nulligravida females (56.4% vs 22.5% vs 16.1%,  $p < 0.001$ ). In addition, currently pregnant patients had the greatest odds of nocturia (OR=6.82, 95% CI 5.10-9.12,  $p < 0.001$ ). While GDM or history of multiple pregnancies showed no associations, increasing trimesters were associated with greater odds of nocturia (ORs ranging from 4.08-10.35) for currently pregnant patients. The third trimester had the highest odds of nocturia (OR=10.35, 95% CI 6.83-15.67,  $p < 0.001$ ) and a greater mean number of nighttime voids than the first and second trimesters ( $2.40 \pm 1.42$  vs  $1.56 \pm 1.31$  vs  $1.88 \pm 1.32$ ;  $p < 0.001$ ).

**Conclusions:** Pregnancy was associated with nocturia, with the third trimester showing the greatest odds and mean nighttime voids. These findings may be due to increasing fetal size, hormonal changes, or pelvic floor dysfunction, although further investigations are needed.