

Prospective Evaluation of the Incidence and Persistence of Gestational Carpal Tunnel Syndrome

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INTRODUCTION: Large variability exists in the reported incidence of gestational carpal tunnel syndrome (GCTS) and there is extremely limited follow up in the post-partum period to characterize the resolution or persistence of symptoms. Our null hypothesis was that there were no specific demographic or comorbid conditions associated with the incidence and persistence of GCTS.

METHODS:

We prospectively administered a survey and Boston Carpal Tunnel Questionnaire (BCTQ), which has been validated for the assessment of CTS symptoms, to women in their third trimester of pregnancy. Women with pre-existing CTS symptoms were excluded. Those with symptoms in the third trimester were then administered additional BCTQs at 2-6 weeks, 3 months, 6 months, and 12 months post-partum or until symptoms either resolved or underwent surgical treatment.

RESULTS: A total of 420 patients completed the initial BCTQ. Of these, 52 were excluded for having prior symptoms, 266 (72.3%) were asymptomatic, and 102 (27.7%) were symptomatic and diagnosed with GCTS during their third trimester. Full post-partum follow up was completed in 66 of the GCTS patients (65%). Of these, 56 patients (84.8%) had symptom resolution within the 6-week post-partum period and 10 patients (15.2%) had persistent symptoms. At 3 months, five patients reached symptom resolution and five (7.6%) had persistent symptoms. Between 3-6 months, one patient who had persistent symptoms had surgery ending their follow up. At 6 months, four patients (6.2%) had persistent symptoms. At 12 months, three patients (4.6%) had persistent symptoms, which were more severe than their initial symptoms during their third trimester. Comparing patients with and without GCTS symptoms, respectively: they are similar in age (32.2 vs. 32.9 years), are more likely to belong to a minority group (49% vs. 38%) or have Hispanic ethnicity (22.0% vs. 13.6%), have a slightly higher pregravid BMI (28.2 vs. 26.1), have a slightly higher third trimester BMI (32.7 vs. 31.0), are more likely to have a history or be a current smoker (28.9% vs. 13.3%), have higher rates of preeclampsia (9.3% vs. 2.3%), and have similar rates of gestational diabetes mellitus (11.3% vs. 11.7%) and cardiac disease (12.4% vs. 15.6%).

DISCUSSION AND CONCLUSION:

Approximately 28% of previously asymptomatic patients will have GCTS in their third trimester. An overwhelming majority of patients who have GCTS during the third trimester will have symptom resolution by 6 weeks post-partum. For those who do not experience symptom resolution by 3 months post-partum, it is most likely that their symptoms will persist and worsen with time. Finally, there appears to be specific demographic and comorbid conditions that can potentially indicate greater likelihood of developing GCT (minority, Hispanic, higher BMI, history of smoking, and preeclampsia).

