Prevalence of Carpal Tunnel Syndrome in Pregnant Women

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ABSTRACT
Carpal tunnel syndrome (CTS) is a frequent complication of pregnancy, with a prevalence reported as high as 62%. The most typical symptoms are numbness and tingling in the thumb, index finger, middle finger, and radial half of the ring finger. Other common manifestations include burning dysesthetic wrist pain, as well as the loss of grip strength and dexterity. Proximal radiation along the volar forearm, medial arm, and shoulder, while not as common, is not unusual. Symptoms are often worse at night and can be exacerbated by forceful activity and extreme wrist positions.

There are numerous causative factors. Any condition that causes increased pressure within the carpal canal or depresses nerve function can cause carpal tunnel syndrome. Common conditions associated with carpal tunnel syndrome include alcoholism, diabetes mellitus, hypothyroidism, post-traumatic deformity, pregnancy, and rheumatoid arthritis. In pregnancy, the likely causes are hormonal changes and edema. Gestational diabetes can also play a role due to generalized slowing of nerve conduction.

METHODS
A search of the PubMed database from 1957 to 2008 for the topics carpal tunnel syndrome, median neuropathy, and pregnancy yielded 116 papers. Several additional landmark papers regarding the topic of carpal tunnel diagnosis and treatment were also selected for review. A review of the abstracts and available papers, as well as the references of those papers, resulted in a focus on 18 manuscripts on the topic.

INTRODUCTION
Carpal tunnel syndrome (CTS) is a frequent complication of pregnancy. The true prevalence is unknown, but has been reported to be as high as 62%. CTS commonly presents during the third trimester, but can occur during the first trimester. It is the most common compression neuropathy of the upper extremity. The most typical symptoms are numbness and tingling in the thumb, index, middle, and radial half of the ring finger. Other common manifestations include burning dysesthetic wrist pain as well as the loss of grip strength and dexterity. Proximal radiation along the volar forearm, medial arm, and shoulder, while not as common, is not unusual. Symptoms are often worse at night and can be exacerbated by forceful activity and extreme wrist positions.

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Most reports in the literature regarding post-pregnancy follow-up note disappearance of symptoms post-partum. Following delivery, pain scores diminish by half during each of the first 2 weeks. This reduction has a correlation with weight loss.

However, a recent report including 1- and 3-year postpartum follow-up noted that at 1 year, despite symptomatic and electrodiagnostic improvement, 84% of patients still had diminished median distal sensory conduction velocities. At 3 years, 49% of patients complained of symptoms and 11% still wore a splint.

**Conclusion**

CTS is a very common disorder of pregnancy. Historically, it has been considered to be a relatively benign condition. Recent evidence points to both a higher prevalence of symptoms as well as electrophysiologic nerve changes that occur even in asymptomatic
women. While most women experience symptomatic improvement following delivery, a significant percentage may still have some complaints and continue to wear splints. A high level of vigilance should be maintained in the management of these patients.

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REFERENCES
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