Nicotine Replacement Therapy: Is it Safe during Pregnancy?

There has been much controversy among healthcare providers about the safety of using nicotine replacement therapy (NRT) to help pregnant women stop smoking. On the one hand, NRT can aid pregnant women in their efforts to quit smoking. On the other, more nicotine actually may be delivered to the embryo and fetus through NRT than through cigarette smoking by the mother (Briggs et al., 2008). Both Briggs and Merlob and colleagues (2011) have recently reviewed studies and suggest that smoking cessation approaches that do not involve the use of drugs are safer for mothers and for fetal development.

According to these writers, nicotine replacement therapy is used to help women stop smoking by relieving withdrawal symptoms and craving, but it is possible that it may have negative effects on the fetus. They call attention to a study by Morales-Suarez-Varela and colleagues (2006) based on the Danish National Birth Cohort. The results of this study showed that when NRT was used during the first trimester of pregnancy, it was related to an increased chance of congenital malformations in offspring. The authors reported that 19 of the 250 children (7.6%) born to mothers who used NRT during pregnancy had congenital malformations. This was a 60% increase in risk as compared to children of nonsmoking mothers who did not use NRT. The sample of mothers using NRT in this study was small (N = 250), however, and the authors believe the study should be replicated by other researchers to confirm the finding.

Based on their summary of findings, the following recommendations have been made by both Briggs and Merlob and colleagues concerning use of NRT in pregnancy:

1) **Non-drug methods to help women stop smoking are safer for mothers and for fetal development.**
2) If NRT is used, it should not be recommended for use in the first trimester of pregnancy;

3) If mothers use NRT while still smoking, they should be warned that the risk related to nicotine exposure may be greater than that from either smoking or NRT alone.

References:


Merlob, P., Stahl, M.B. & Tikva, P. Anti-smoking Drugs (Smoking Cessation Drugs). Unpublished manuscript, Sent by otis-bounces@otispregnancy.org to Claire D. Coles, June 2, 2011.

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