Vitamin C no panacea for pregnant smokers babies

By ACSH Staff — May 21, 2014

One thing that everyone should know by now is that smoking during pregnancy can harm a baby in several ways. For example, smokers babies are typically smaller than they should be, and their lungs may be less well developed than those of babies born to non-smokers. However, despite these well-publicized facts, recent data from the CDC indicate that over 12 percent of pregnant women smoke.

Recently, work with pregnant monkeys suggested that some of the ill effects of smoking on newborns lungs might be prevented or ameliorated by giving the pregnant mothers vitamin C. A new study just published in JAMA tested this effect in pregnant women.

Dr. Cindy T. McEvoy of the Oregon Health & Science University in Portland and colleagues from several institutions randomly assigned 159 pregnant women who smoked to take either 500 milligrams of vitamin C per day, or a placebo pill (76 received the vitamin, and 83 the placebo). They also studied a group of non-smoking pregnant women as a comparison. The women's pregnancies were less than 22 weeks when the study began.

Within 72 hours of birth, the researchers tested their babies for pulmonary (lung) function. They followed the infants for one year, also assessing the occurrence of wheezing, and repeating the functional tests at that time.

Neonatal testing revealed that infants of pregnant smokers who had taken vitamin C had significantly better results on pulmonary tests than did babies of mothers who took the placebo pills. Babies of non-smoking mothers performed better on these tests than babies of either smoking group.

By one year of age, babies from both smoking groups were similar on repeated tests of lung function. However, babies of mothers who had taken vitamin C were significantly less likely to have experienced wheezing during their first year of life.

In their conclusion, the authors write Vitamin C supplementation in pregnant smokers may be an inexpensive and simple approach (with continued smoking cessation counseling) to decrease
some of the effects of smoking in pregnancy on newborn pulmonary function and ultimately infant respiratory morbidities.

In an accompanying editorial [3], Dr. Graham L. Hall of the University of Western Australia emphasizes achieving smoking cessation should be the primary goal for women who smoke and who intend to or become pregnant. By preventing her developing fetus and newborn infant from becoming exposed to tobacco smoke, a pregnant woman can do more for the respiratory health and overall health of her child than any amount of vitamin C may be able to accomplish.

ACSH's Dr. Elizabeth Whelan agrees completely with Dr. Hall's comment, only suggesting that vitamin C supplementation during pregnancy should be looked upon only as a minor form of harm reduction. Pregnancy is a period when a woman can be most amenable to quitting smoking, and she should be supported strongly in trying to do so.