Medical Xpress

Air bags not a risk to pregnant women in motor vehicle crashes, study finds

December 22 2009, by Mary Guiden

(PhysOrg.com) -- A new ground-breaking study from University of Washington researchers has found that air bags do not seem to elevate risk of most potential adverse outcomes during pregnancy.

Motor vehicle crashes affect an estimated 32,800 pregnant women each year in the United States. Studies have concluded that crashes are one of the leading causes of injury-related maternal and fetal deaths, and the most common cause of injury-related hospitalization among pregnant women. Now, a new ground-breaking study from University of Washington researchers has found that air bags do not seem to elevate risk of most potential adverse outcomes during pregnancy. Study results are published in the January 2010 issue of *Obstetrics & Gynecology*.

"No one has conducted any large scale data-driven studies looking at air bags and pregnant women," said Dr. Melissa Schiff, lead author and professor of epidemiology at the UW School of Public Health and researcher at the Harborview Injury Prevention and Research Center.

The findings may seem counter-intuitive, but researcher Schiff said she was pleased about what the team found. Reports on early model airbags found an increased risk of death among special populations, namely children and small statured women. "I was very pleased that there was not an increased risk for pregnant women among many of the outcomes we looked at," she said. "Air bags are such a ubiquitous part of motor vehicles and have complicated our behaviors, due in part to the documented risk of first generation airbags. Over the years, airbags have

been redesigned and have greatly reduced this threat."

In the Washington state-based study, researchers looked at 3,348 police-reported nonrollover crashes among pregnant front seat occupants during the study time period of 2002 to 2005. Schiff and colleagues then combed that data, looking at demographic and obstetric characteristics. According to the data, pregnant occupants in vehicles with an air bag were not at increased risk of pregnancy complications such as Cesarean delivery, fetal distress, and a low birth weight baby, compared with occupants in vehicles without an air bag.

Researchers detected two inconclusive findings: a 70 percent increased risk of preterm labor and a threefold increased risk of fetal death among occupants in vehicles with air-bag deployment. Schiff said the findings are "inconclusive" because of the sample size (e.g., two of 198 pregnant women with a deployed air bag experienced fetal death and two of 622 pregnant women without air bags). "We need studies with more women and a larger population of women in crashes across the country or in other countries to really determine what those numbers mean," she said.

"One of the main messages beyond air bags is that pregnant women are best protected by wearing a seatbelt in motor vehicles," said Schiff. "It's going to protect you and your baby. Prior studies in non-pregnant populations have shown that air bags do not add substantial additional protection if you are wearing a seat belt."

This study included researchers at Group Health Research Institute in Seattle. The project was supported by a grant from the Centers for Disease Control and Prevention.

Provided by University of Washington