**The association between gestational diabetes and stillbirth in Taiwan: a population-based study**

**Aim:** Stillbirth is the worst possible birth outcome and the stillbirth rate is an indicator of the quality of antenatal and intrapartum care. Gestational diabetes is one of the most common medical complications in pregnancy. The aim of this study was examining the association between gestational diabetes and stillbirth in Taiwan.

**Methods:** This was a population-based cohort study. Data were extracted from the Birth Certificate Application database. According to the law, all births in Taiwan must be registered within 7 days following delivery by the birth attendants. Owing to mandatory and online input, the database is complete and reliable. Singleton births at 28 or more gestational weeks were included. A total of 1,536,796 births, including 3,741 stillbirths, were analyzed from January 2006 to December 2013.

We used logistic regression analysis to examine the adjusted effects of women with gestational diabetes on stillbirth.

**Results:** The stillbirth rate was 2.4 per 1000 births. An increasing proportion of mothers with diabetes mellitus over the study period was observed. The proportion of mothers with diabetes mellitus was 0.94% overall and increased from 0.69% in 2006 to 1.57% in 2013 (p<0.001).The adjusted odds ratio (aOR) for stillbirth was 2.04 (95% CI 1.67-2.51, p< 0.001) for gestational diabetes after adjusting for maternal age, single women, baby sex, gestational age, and women with hypertension, women with anemia, and amount of hydramnios.

**Conclusions:** Women with diabetes mellitus were found to have an increased risk for stillbirth. Although the rate of stillbirth was stable during the study period, the incidence of gestational diabetes associated with stillbirth had increased over time. Understanding about the gestational diabetes might change protocols and allow for earlier detection of problems and prevention of stillbirths. Prevention or management of gestational diabetes should be undertaken to reduce stillbirth rate.