

Pregnancy-induced hypertension is an independent risk factor for meconium aspiration syndrome: A retrospective population based cohort study.

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ABSTRACT

OBJECTIVE: Meconium aspiration syndrome (MAS), possibly resulting from fetal hypoxia, is a respiratory distress disorder in the infant. Pregnancy-induced hypertension (PIH) can cause placental dysfunction and lead to fetal hypoxia, which may induce the development of MAS. Therefore, the aim of this study was to determine the association between PIH and MAS and to identify the predictive risk factors.

MATERIALS AND METHODS: This was a retrospective cohort study. We selected patients with newly diagnosed PIH and a matched cohort group from the Taiwan National Health Insurance Research Database (NHIRD), from January 1, 2000 till December 31, 2013. For each patient in the PIH cohort, 4 subjects without PIH, matched for age and year of delivery, were randomly selected as the comparison cohort. The incidence of meconium aspiration syndrome was assessed in both groups.

RESULTS: Among the 23.3 million individuals registered in the NHIRD, 29,013 patients with PIH and 116,052 matched controls were identified. Patients who experienced PIH had a higher incidence of MAS than did those without PIH. According to a multivariate analysis, PIH (odds ratio [OR] = 1.70, 95% confidence interval [CI] = 1.49-1.93, $p < 0.0001$) was independently associated with increased risk of MAS. Additionally, age ≥ 30 years (OR = 1.26, 95% CI = 1.12-1.42, $p = 0.0001$), nulliparity (OR = 1.13, 95% CI = 1.01-1.27, $p = 0.0367$) and patients with diabetes mellitus (OR = 3.09, 95% CI = 1.35-7.09, $p = 0.0078$) were also independent risk factors of MAS.

CONCLUSION: Patients with PIH obtained higher subsequent risk for the development of MAS than those without PIH. Besides, age ≥ 30 years, nulliparity and patients with diabetes mellitus are the independent risk factors of developing MAS.