

FAMILY HISTORY OF PARENTAL DIABETES IN TYPE 2 DIABETIC WOMEN WITH AND WITHOUT A PREVIOUS HISTORY OF GESTATIONAL DIABETES MELLITUS: A STUDY OF A NATIONAL SAMPLE IN TAIWAN

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BACKGROUND/AIMS: To examine the differences in clinical characteristics and family history of parental diabetes between Taiwanese type 2 diabetic women with and without a previous history of gestational diabetes mellitus (GDM).

METHODS: A total of 48,502 type 2 diabetic women from a national sample were interviewed by telephone. Among them, 510 reported a GDM history. Parental diabetes was compared between patients with and without a GDM history taking into account the potential confounding effects of age, body mass index, smoking and hypertension.

RESULTS: The patients with a GDM history were younger, had an earlier age of onset, a longer duration of diabetes, slightly lower body mass index, higher prevalence of insulin use and lower prevalence of hypertension; but the rates of smoking were similar. The rates of parental diabetes in neither parent, the mother only, the father only and both the father and the mother for those without a GDM history were 76.2%, 15.2%, 5.8% and 2.8%, respectively; and were 47.8%, 26.8%, 17.5% and 7.9%, respectively, for those with a GDM history ($p<0.001$). The adjusted odds ratios for patients with and without a GDM history for parental diabetes in neither parent, the mother only, the father only, and both the father and the mother were 1.000, 1.352 (1.065-1.717), 1.869 (1.412-2.473) and 2.451 (1.700-3.534), respectively.

DISCUSSION/CONCLUSIONS: Maternal diabetes is more commonly seen in Taiwanese type 2 diabetic women either with or without a GDM history. However, the disproportionately higher paternal diabetes in patients with a GDM history than those without suggests an important role of paternal diabetes on the development of GDM into T2DM.

Key words: family history, parental diabetes, gestational diabetes mellitus