

## A Retrospective Study on the Age of Onset for Type 2 Diabetes Diagnosis

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**Abstract :** There is a progressive increase in the prevalence of early onset Type 2 diabetes mellitus. Early detection of Type 2 diabetes enhances the length and/or quality of life which might result from a reduction in the severity, frequency or prevent or delay of its long-term complications. The study aims to determine the onset age for the first diagnosis of Type 2 diabetes mellitus. A retrospective study conducted in the endocrine clinic at Hospital Pulau Pinang in Penang, Malaysia, January-December 2016. Records of 519 patients with Type 2 diabetes mellitus were screened to collect demographic data and determine the age of first-time diabetes mellitus diagnosis. Patients classified according to the age of diagnosis, gender, and ethnicity. The study included 519 patients with age ( $55.6 \pm 13.7$ ) years, female 265 (51.1%) and male 254 (48.9%). The ethnicity distribution was Malay 191 (36.8%), Chinese 189 (36.4%) and Indian 139 (26.8%). The age of Type 2 diabetes diagnosis was ( $42 \pm 14.8$ ) years. The female onset of diabetes mellitus was at age ( $41.5 \pm 13.7$ ) years, while male ( $42.6 \pm 13.7$ ) years. Distribution of diabetic onset by ethnicity was Malay at age ( $40.7 \pm 13.7$ ) years, Chinese ( $43.2 \pm 13.7$ ) years and Indian ( $42.3 \pm 13.7$ ) years. Diabetic onset was classified by age as follow;  $\leq 20$  years' cohort was 33 (6.4%) cases. Group  $>20$ -  $\leq 40$  years was 190 (36.6%) patients, and category  $>40$ -  $\leq 60$  years was 270 (52%) subjects. On the other hand, the group  $>60$  years was 22 (4.2%) patients. The range of diagnosis was between 10 and 73 years old. Conclusion: Malay and female have an earlier onset of diabetes than Indian, Chinese and male. More than half of the patients had diabetes between 40 and 60 years old. Diabetes mellitus is becoming more common in younger age  $<40$  years. The age at diagnosis of Type 2 diabetes mellitus has decreased with time.

**Keywords :** age of onset, diabetes diagnosis, diabetes mellitus, Malaysia, outpatients, type 2 diabetes, retrospective study

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