

Demographic and Clinical Characteristic of Type 1 Diabetes Mellitus in Omani Children: Single Center Experience

Received: 2 Apr 2014 / Accepted: 10 Apr 2014
© OMSB, 2014

To the Editor

I read with interest the study by Al-Yaarubi et al.¹ on the demographic and clinical characteristics of type 1 diabetes mellitus (T1DM) in Omani children. Al-Yaarubi et al.¹ mentioned that the frequency of diabetic ketoacidosis (DKA) at diagnosis (31%) was higher than that reported in some developed countries. They addressed some factors contributing to it, namely different racial and environmental factors as well as genetic heterogeneity between Asian and Caucasian populations.

I presume that the following four points might be additionally contributory. First, it is the consequence of the overall worldwide increased incidence of childhood T1DM over the last few decades.² Second, though Al-Yaarubi et al.¹ did not address other demographic variables in their study like socioeconomic status and parental education, I presume that these factors might influence the frequency of DKA in their studied population as it was found that DKA at diagnosis was associated with lower family income and lower parental education.³ Third, Al-Yaarubi et al.¹ stated that the overall mean age \pm SD at diagnosis of T1DM in the studied patients was 6.7 ± 3.7 years (range: 9 months to 14 years). However, the exact frequency distribution of the studied population according to the age groups was not addressed. Increasing evidence has emerged regarding the difficulties in diagnosing T1DM as significant causes of DKA development in children with new-onset T1DM. Patient's age at presentation was noticed to be the main risk factor of delayed diagnosis especially in children below two years of age.⁴ Fourth, diabetic children overall were noticed to have more medical encounters before diagnosis than control subjects. Children with DKA were found to be less likely to have had relevant laboratory testing before diagnosis than children with diabetes without DKA.⁵ Increasing public awareness and greater pediatricians' alertness are solicited to decrease the high rate of DKA in Omani children with newly diagnosed T1DM.

References

1. Al-Yaarubi S, Ullah I, Sharef SW, Al Shidhani A, Al Hanai S, Al Kalbani R, et al. Demographic and clinical characteristics of type 1 diabetes mellitus in omani children - single center experience. *Oman Med J* 2014 Mar;29(2):119-122.
2. Soltész G, Patterson CC, Dahlquist G; EURODIAB Study Group. Worldwide childhood type 1 diabetes incidence—what can we learn from epidemiology? *Pediatr Diabetes* 2007 Oct;8(Suppl 6):6-14.
3. Rewers A, Klingensmith G, Davis C, Petitti DB, Pihoker C, Rodriguez B, et al. Presence of diabetic ketoacidosis at diagnosis of diabetes mellitus in youth: the Search for Diabetes in Youth Study. *Pediatrics* 2008 May;121(5):e1258-e1266.
4. Pawłowicz M, Birkholz D, Niedźwiecki M, Balcerska A. Difficulties or mistakes in diagnosing type 1 diabetes in children?—demographic factors influencing delayed diagnosis. *Pediatr Diabetes* 2009 Dec;10(8):542-549.
5. Bui H, To T, Stein R, Fung K, Daneman D. Is diabetic ketoacidosis at disease onset a result of missed diagnosis? *J Pediatr* 2010 Mar;156(3):472-477.

Sincerely,

Mahmood Dhahir Al-Mendalawi ✉

Professor in Pediatrics and Child Health, Consultant Pediatrician, Head of Department of Pediatrics, Al-Kindy College of Medicine, Baghdad University, Baghdad, Iraq.
E-mail: mdalmendalawi@yahoo.com