

## Prevalence of Hyperinsulinism, Type 2 Diabetes Mellitus and Metabolic Syndrome among Saudi Overweight and Obese Pediatric Patients

**Abdulmoein Al Agha**

King Abdul Aziz University, Saudi Arabia

Obesity and overweight among children and adolescents is increasing at an alarming rate, which lead to the increase in the incidence of their related co-morbidities. Our objectives are to establish the following: 1) the prevalence of hyperinsulinism among overweight and obese pediatric patients. 2) The prevalence of type 2 diabetes mellitus (T2DM) among those with hyperinsulinism. 3) The prevalence of metabolic syndrome (MS) and its components among T2DM pediatric patients. A retrospective cross-sectional study conducted on overweight and obese pediatric patients attending the pediatrics diabetes clinic at King Abdul-Aziz University Hospital, Jeddah, Saudi Arabia, from 2006 to 2010. Serum insulin level was measured for 387 patients (ages from 2 to 18 years). Those with hyperinsulinism underwent further investigations to assess the prevalence of T2DM and the prevalence of MS among T2DM patients. The overall prevalence of hyperinsulinism and T2DM were 44.7%, and 9.04%, respectively. Among children and adolescents with T2DM, 62.86% had a body mass index BMI $\geq$ 85th percentile, 37.14% had a BMI  $\geq$  95th percentile, 14.29% had MS, 34.29% were hypertensive and 28.57% had dyslipidemia. Obesity and its co-morbidities were prevalent among Saudi pediatric patients. We recommend preventing excessive weight gain through the promotion of a healthy lifestyle, family educational seminars and the reinforcement of indoor exercises.

### Biography:

Abdulmoein Al Agha is a Professor of Pediatrics & Pediatric Endocrinology at King Abdul Aziz University. He received his Fellowship certificate in Pediatric Endocrinology and Diabetes from Sydney, Australia, 2001. Fellowship of the Royal College of Physician (Edinburg) since 1997, and graduated King Abdul Aziz University Medical School, Jeddah, Saudi Arabia, 1991.

He has many present and past academic and administrative positions including; MRCPCH Overseas examiner and host as well supervisor for Saudi Board Pediatric residency training for western Region since 2001. He is a coordinator, Pediatric Club Western Region, since 2007 to present. He is the chairman of Reproductive Modules "New Faculty Curriculum" from 2009 to present. He was acting Chairman, of Pediatric, KAUH 2006-2007. He is as well, a visiting instructor and teacher, Ibn- Sina Medical School, 2008 to present. He has been invited to be an external examiner for many of Gulf and Arab countries; including Bahrain, Kuwait, United Arab Emirates, Oman, and Egypt for Pediatric under and post graduates as well for Endocrine examinations. He has been invited as speaker for many of local educational programs and conferences as well Gulf, Arab and international conferences. He developed interest in medical education and he had Certificate of medical education- university of Illinois, Chicago, USA 2009. In research he has published more than 40 publications in refereed journals and orally presented more than 60 presentations in international meetings. He has also authored an English textbook of Pediatric Endocrinology and diabetes textbook, and 10 Arabic books. Finally, he is a member of many of Pediatric and Endocrine local and international societies.