Impaired Glucose Tolerance and Diabetes Mellitus in Obese Children

The incidence of Type 2 diabetes mellitus (T2DM) and Impaired Glucose Tolerance (IGT) is increasing among children all over the world. In India, T2DM develops at a younger age, at least a decade earlier, than in Western population(1). There is paucity of data on prevalence of IGT and T2DM amongst children suffering from obesity in NCT of Delhi. This data is a part of larger study data set of study conducted on prevalence of overweight and obesity amongst school children in Delhi, which has been published earlier(2). A total of 451 obese children in the age of 6-<18 were identified in this study by IOTF classification(3), of which 154 children, were included in the present study, to assess the prevalence of T2DM and IGT.

The study was approved by ethics committee of All India Institute of Medical Sciences, New Delhi. A informed written consent was taken from parents of each child. Each child was instructed to report after fasting of 10 hours, on the day of blood collection. On each child, Oral Glucose Tolerance Test was (OGTT) was conducted as per the standardized procedure(3). Fasting blood sample was collected from each child and subsequently child was orally administered with standard glucose at 1.75g/kg bodyweight but not exceeding a total of 75 g. The glucose was dissolved in water and child was requested to drink it within 5 minutes. The time of drinking of glucose solution was noted and after 2-hours the blood samples were collected.

Obese children with fasting blood glucose levels less than 126 mg/dL or 2-hour glucose load levels between 140-200 mg/dL were considered as suffering from IGT. Similarly, children with fasting blood glucose more than 126 mg/dL or 2-hour glucose level of more than 200 mg/dL were considered as suffering from T2DM(4). It was found that amongst obese children, the prevalence of T2DM and IGT was 1.3 and 18.2 percent, respectively. In an earlier study from Delhi, abnormal glucose tolerance of 24.8% has been reported amongst overweight and obese children in 5-18 years of age(5). The difference in the results was because these authors included both overweight and obese children, while in the present study only obese children were considered. Another study from Italy has documented the prevalence of IGT and T2DM as 9 and 0.6%, respectively, amongst obese children in the age group of 6-14 years(6). The variation in the results observed from present study could be due to difference in the age group included in the study.

The findings of the present study suggest conducting a larger study in this field.

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Scrotal Abscess in A Newborn: Caused by Extended-Spectrum Beta-lactamase-Producing Klebsiella pneumoniae

We are reporting a 17-day-old male newborn, infant of a diabetic mother, who was admitted to our hospital with abdominal distention. Bilateral especially right side, erythematous, painful, warm swelling of the scrotum developed on 18th day of his life (Fig. 1). White blood cell count was 31.2×10³/µL. CRP and procalcitonin level were 3.85 mg/dL and 2.47 µg/mL, respectively. Needle aspiration from the right scrotum revealed pus. The extended-spectrum beta-lactamase–producing (ESBL) Klebsiella pneumoniae was grown in purulent material. Antibiotics (imipenem, vancomycin, and amikacin) were started. The isolate was sensitive to imipenem and amikacin. The blood and urine cultures were sterile. The resolution of abscess was shown on ultrasound and there has not been recurrence of the scrotal swelling.

Scrotal abscess could have developed secondary to intraperitoneal infection via previously undiagnosed patent processus vaginalis(1,2). The most common causative microorganism of the scrotal abscess is Staphylococcus in neonates(3). It has also been reported due to a coliform organism(4), β hemolytic Streptococcus and Bacteroides(5), and Salmonella enteritidis (6). The treatment consists of antibiotics and drainage(1).

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**Fig.1:** Clinical appearance of the scrotum.