
Letters to the Editor

Juvenile Diabetes Mellitus Masquerading as Disseminated Candidiasis

Juvenile diabetes mellitus may present acutely as diabetic ketoacidosis or with a chronic history of polyuria, polydipsia and polyphagia. Uncommon presentations include unexplained fever and weight loss, abdominal pain and secondary enuresis. Pyogenic skin infections and monilial vaginitis in teenage girls and adults may be present at the time of diagnosis but are rarely the sole presenting feature(1,2). We present a case of diabetes mellitus in a ten year old boy who presented to us with candidiasis of the oropharynx, mucocutaneous junctions and urinary tract.

The child was admitted with continuous low grade fever and progressive weight loss for a month. Examination revealed a febrile, mildly pale, cachexic child weighing 15.0 kg. Candidiasis was detected in the oral cavity and around the buttocks, perianal region and groin. The diagnosis was confirmed by microscopic examination of local scrapings. All routine hematological investigations and chest skiagram were normal. Urine revealed no albumin with normal microscopic examination. Culture of the urine revealed *Candida* species on two different occasions. Blood culture was sterile. Tuberculin test was negative. A diagnosis of disseminated candidiasis was entertained and therapy was instituted with intravenous fluconazole. A futile search was made for an underlying condition leading to immunosuppression. Serological tests for tuberculosis, connective tis-

sue disorders and HIV were negative. No history of steroid intake was forthcoming.

A chance examination of urine for reducing sugar was highly positive (4+). A random blood sugar reading was 486 mg per dl. Retrospective evaluation of the child revealed a history of polyuria. Polydipsia and polyphagia were not present. A fasting blood sugar of more than 300 mg per dl on two different days confirmed the diagnosis of juvenile diabetes mellitus. Appropriate therapy was instituted to which the child responded.

Disseminated candidiasis is either observed in patients with marked immunosuppression or in those receiving chronic intensive care therapy. An association with diabetes mellitus is not unheard of; though it is rare to have it as the sole presenting feature of juvenile diabetes. The mechanism is obscure and it is uncertain whether propensity for disseminated fungal infection in diabetes mellitus is due to a decreased neutrophil function or increased availability of substrate, i.e., glucose, which is a major food source for *Candida*(3,4).

The present case highlights one of the uncommon manifestations of a common illness. We failed to detect diabetes in the first instance because of the unusual presentation as well as delay on our part to perform a urine examination for reducing sugar. Recognition of protean manifestations of diabetes mellitus is important, as the results of treatment are gratifying.

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Recurrent Pain Abdomen Due to Biliary Calculus

In children pain abdomen due to biliary cholelithiasis is rare especially in preschool children. Gall stones composed of a mixture of cholesterol, bile pigment, calcium and inorganic matrix are the most common type encountered. Sometimes pure cholesterol or pure bile pigment may also occur.

A 4-year-old male child presented with recurrent generalized pain abdomen. There was no history of fever. The child did not like fatty foods. General and systemic examinations were unremarkable. The serum cholesterol was in normal range. Plain X-ray abdomen did not show any abnormali-

ty. Ultrasound of the abdomen revealed a solitary calculus floating inside the gall bladder. Cholecystectomy was performed and the patient is normal on follow up.

Biliary lithiasis in pre-school(l) children is rare and the reported causes include chronic hemolytic disease, prolonged fasting or rapid weight reduction, obesity, cystic fibrosis, chronic liver disease, prolonged parenteral nutrition, and prematurity with complicated medical and surgical cause. None of these conditions were evident in the case reported.

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