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The role of stressful life events in the clinical onset of IDDM and its metabolic control in childhood

BY

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ABSTRACT

Much current diabetic research is increasingly devoted to the possible association between stressful life events and the onset of insulin-dependent diabetes mellitus (IDDM) in children. The study focuses on stressful life events as possible aetiological agent of IDDM in children and biochemical changes in the diabetics following insulin treatment. The study was carried out on a group of 19 insulin dependent diabetic children admitted at or attending Mpilo Hospital, Bulawayo. Most patients presented with diabetic ketoacidosis (DKA), hyperglycaemia, dehydration, polyphagia and polyuria. A control group consisting of 20 healthy children were recruited in Magwegwe Bulawayo. It was shown that it was difficult to achieve a sound long-term metabolic control with insulin treatment. this could be attributed to the effects of stress hormones, 'unideal' diabetic diet due to poverty and poor patient education on the diseases, lack of intensive insulin therapy and poor self-glucose monitoring. IDDM was found to have effects on the anthropometric, physiometric and psychological indices resulting in the diabetic patients having higher heart rate at rest (97.7 bts/min) and lower results when submitted to apnoic test (20.6 sec) and tipping test (233.2 points). Stressful life events during the last year prior to clinical onset of IDDM were recorded on a questionnaire. Diabetic patients recorded the higher total frequency (5.84) of stressful life events than than the control group (4.2). The relative frequencies of severe events stressful were significantly higher for diabetic children (32.53%).

In conclusion, severe emotional stress associated with birth of another sibling, the influence of a step-parent, serious illness of the mother, marital separation or divorce of parents and the change in parent's financial status may pose as a great risk in the clinical onset of IDDM and derail the metabolic control.