

Title : Case-control study of eating disorders among adolescents with type 1 diabetes

## Background

Adolescents with type 1 diabetes appear to be at risk for developing eating disorders (ED) which can be responsible for a metabolic imbalance of diabetes. The purpose of this study was to compare eating disorders among adolescents with type 1 diabetes and their peers without diabetes to investigate the consequences of diabetes on food, perceptions about body image and anthropometric parameters in individuals with diabetes.

## Methods

We conducted a case-control study over a one-year period between January 2017 and January 2018 including 102 type 1 diabetic adolescents followed at the Zouhair Kallel Nutrition Institute and 114 adolescents' controls matched in age and sex. Patients benefited from anthropometric measurements. Eating disorders were screened using the self-questionnaires Eating Attitudes Test 40 (EAT 40), and Bulimic Investigatory Test Edinburgh (BITE). In order to specify the types of ED, we used the Diagnostic Interview (Mini International Neuropsychiatric Interview MINI) according to DSM-4 criteria.

## Results

Of a total 216 adolescents interviewed, 52.8% were female with an average age with 15.8 ranging between 11 to 18 years. Overweight was diagnosed respectively among 16.7% of diabetic group and 12.1% of control group with no significant difference ( $p=0.3$ ). ED were found in 33.3% of cases and 15% of controls with a significant difference ( $p=0.002$ ). The prevalence of ED was significantly higher among girls (15.3%) than boys (8.3%) ( $p=0.05$ ). Unspecified ED were significantly higher among cases than controls ( $p=0.01$ ). Anorexia Nervosa was present in only one diabetic adolescent. Bulimia was diagnosed in only 3 diabetics. However, no cases of anorexia or bulimia were found among controls.

## Discussion

Unspecified ED were more prevalent among type 1 diabetic adolescents than nondiabetic adolescents. This finding justifies the importance of screening of ED among diabetic adolescents and treating them to allow better glycemic control, prevent complications and improve the quality of life of these young diabetics.