Type 1 diabetes mellitus (T1DM) - related hepatopathy is not uncommon and tends to be more prevalent among children with poor glycemic control. Recent studies suggest that fatty liver disease may be more common in T1DM than previously thought. (1)

Introduction

The aim of this work was to determine the frequency of hepatopathy in patients with T1DM attended diabetes clinic at Alexandria university children's hospital (AUCH) and it's relation to the state of glycemic control and lipid profile.

Methods

Study was carried out on 70 patients diagnosed with T1DM attended diabetes clinic at AUCH. All were subjected to the following:

- History, full detailed physical examination, Anthropometric measurements: Height standard deviation (SD) score and body mass index (BMI) percentile.
- Liver function tests (albumin, prothrombin time, ALT, AST).
- Lipid profile: total cholesterol, LDL-cholesterol, HDL-cholesterol and triglycerides.
- HbA1C
- Transabdominal ultrasonography by using scoring system for detection of fatty infiltration of the liver. (2)

In the present study, the mean duration of diabetes was 6.5 ± 2.2 years.
- About (51.4%) of the patients were using premixed insulin therapy.
- Hypercholesterolemia, hypertriglycerideremia, high LDL and low HDL were found in (24.3%, 17.1%, 8.6% and 4.3%) of the patients respectively.
- (62.9%) of patients were with poor glycemic control.
- More than half of the patients had been found to have fatty liver (52.9%).

Table (1): Relation between U/S abdominal and different parameters (n = 70)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Total Cholesterol (mg/dl)</th>
<th>HbA1C (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>27 (81.8%)</td>
<td>10 (55.9%)</td>
</tr>
<tr>
<td>Female</td>
<td>20 (66.7%)</td>
<td>21 (56.8%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Insulin</th>
<th>Total Cholesterol (mg/dl)</th>
<th>HbA1C (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basal bolus</td>
<td>14 (42.4%)</td>
<td>20 (51.5%)</td>
</tr>
<tr>
<td>Pre mixed</td>
<td>19 (57.6%)</td>
<td>17 (45.9%)</td>
</tr>
</tbody>
</table>

Results

• In the present study, the mean duration of diabetes was 6.5 ± 2.2 years.
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Conclusions

A high rate of fatty liver among the patients was found and it was related to patients with poor glycemic control.

References