HIGHER HOMA LEVELS AND FAILED DECREASE IN BODY FAT CAN BE CONSIDERED UNFAVOURABLE PREDICTORS OF RESTORING EUGLYCAEMIA IN DIABETIC CIRRHOTIC PATIENTS UNDERGOING LIVER TRANSPLANTATION

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BACKGROUND

Data from literature:

• BEFORE LIVER TRANSPLANTATION:
  20-60%: altered glucose homeostasis
  DUE TO
  Increased insulin resistance

• AFTER LIVER TRANSPLANTATION:
  67%: recover from DM
  33%: remain diabetic
  Increased insulin resistance
  Decreased β-cell function

AIM OF THE STUDY

Highlight any factors that predict increased risk of persistence of post-OLT glucose homeostasis alterations in diabetic cirrhotic patients undergoing liver transplantation

MATERIALS AND METHODS

42 patients with liver cirrhosis (31M/11F):
- age 53 9.9 years
- waiting for OLT
- negative history for DM
- FPG and HbA1c in the normal range

OLT

Assessed 6 months after OLT

Diabetic patients: 13 pz
Non Diabetic patients: 22 pz

Glucose Homeostasis:
Regressors: 7 pz

Evaluation:
- Oral glucose tolerance test (OGTT) performed to diagnose DM
- Bioelectrical Impedance Analysis (B.I.A.) performed to quantify fat mass
- HOMA IR calculated to assess Insulin Resistance

RESULTS

<table>
<thead>
<tr>
<th>HOMA</th>
<th>ND</th>
<th>D</th>
<th>R</th>
<th>p &lt; 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,7 ± 1,7</td>
<td>3,1 ± 0,6</td>
<td>3,7 ± 1,8</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>BODY FAT DECREASE (%)</th>
<th>ND</th>
<th>D</th>
<th>R</th>
<th>p &lt; 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1,2 ± 0,8</td>
<td>1,5 ± 0,2</td>
<td>-13,3 ± 9</td>
<td></td>
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CONCLUSIONS

In diabetic cirrhotic patients, higher HOMA levels and failed decreased in body fat after transplantation can be considered unfavourable predictors of recovering from diabetes after transplantation.