

## **Glucagon like peptide - 1 agonist treatment in patients with type 1 diabetes mellitus: effects on weight and glycaemic control in an Emirati population**

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### **Objective:**

Investigating the effects of GLP1 agonists on weight and HbA1c in Emirati patients with type 1 diabetes mellitus.

### **Methods:**

Information on all patients with Type 1 diabetes on GLP1 agonist treatment (n=48; 15 on exenatide 2 mg weekly and 33 on liraglutide 0.6-1.8 mg daily) for over 6 months was retrieved from a computerized database of patients attending a large diabetes center in UAE. Data on weight and HbA1c were collected at baseline and 6 (range 5-7) months of treatment. Non-parametric tests (Wilcoxon) were performed as appropriate.

### **Results:**

There was a significant median weight reduction of 1.88 (IQR -3.8 to -0.85,  $p<0.001$ ) kg from baseline median weight of 92.9 (IQR 79.7 to 104) kg. The median weight reduction with weekly exenatide was 1.7 (IQR -2.6 to 0,  $p=0.008$ ) kg and 2 (IQR -4.4 to -1.15,  $p<0.001$ ) kg with daily liraglutide, with no statistically significant difference in the weight reduction effect between the two drugs ( $p=0.49$ ). GLP1 agonist therapy resulted in no significant change in glycaemic control from baseline HbA1c of 8.7% (IQR 8.1 to 9.6%); the change at 6 months was -0.4% (IQR -1 to 0.7 %,  $p=0.35$ ) with no statistically significant difference between the two drugs studied.

### **Conclusion:**

In the UAE population of Type 1 diabetes patients, addition of GLP1 agonist therapy results in modest weight loss, but no significant change in glycaemic control. Our findings are in line with the limited published work in other populations and merit larger randomized trials for confirmation.