

Weight influence on future efficacy of an insulin pump treatment in type 2 diabetic patients in metabolic failure with optimized insulin multi-injections pattern.

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○ Aim

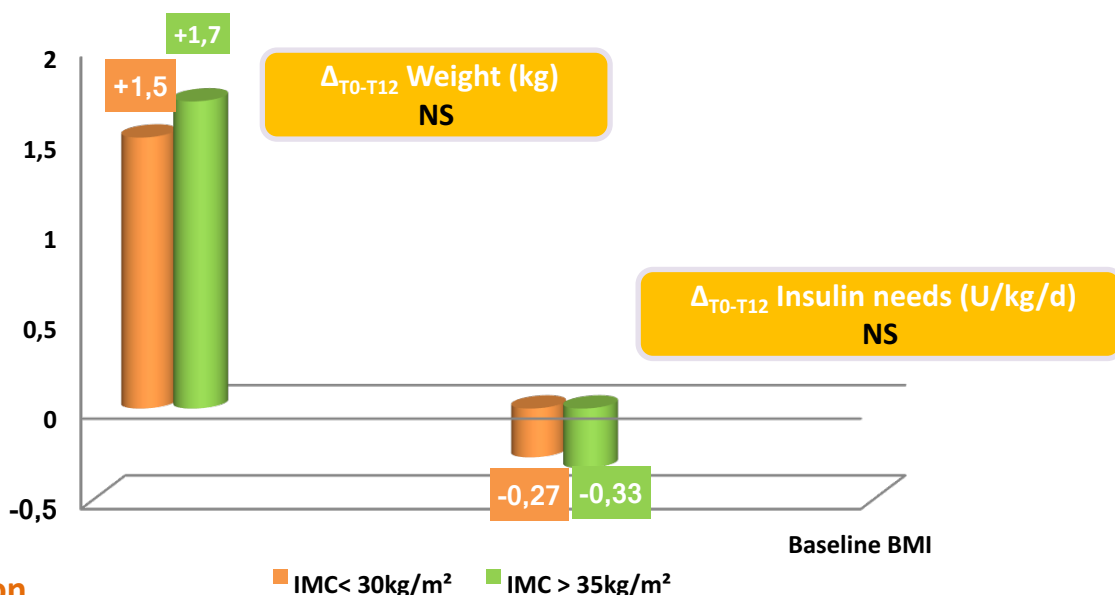
May weight influence metabolic results with an insulin pump in type 2 diabetic (T2D) patients with multi-injections metabolic failure?

○ Patients and methods

92 T2D patients with multi-injections pattern (3.4/injections/d – 1.23U/kg/j) didn't achieve glycaemic control (HbA1c ≥ 8% - average : 9.5%) and started ambulatory insulin pump (AIP) treatment for a probing period of 12 months. They were divided into 2 groups (Group1: BMI ≤ 30kg/m²; N=21; average: 28.5kg/m² – Group2: BMI ≥ 35 kg/m²; N=29; average 37.8kg/m²).

○ Results

- The global improvement of **HbA1c** ($\Delta_{T0/T12}$) was -1.55 ± 1.52 % (p<0.001) and 56.5% of the patients with HbA1C ≤ 8%. HbA1c dropped respectively by -1.6 ± 1.62 and -1.57 ± 2.75 % in groups 1 et 2 (NS). The proportion of patients with HbA1c ≤ 8% evolved (T0-T12): 19%/67% (Group1); 3%/52% (Group2) – p=0.008. No severe hypoglycaemia was reported in both groups.
- Global **weight** gain was +1.5kg, not significantly different in both groups: +1.5kg vs +1.7kg. Whereas specific T0-T12 evolution (Group1/Group2) in weight loss: 28.6/21.4% or weight gain >3%: 38.1 vs 43 % was not significant.
- Global reduction in **insulin needs** with AIP was 20%. Its evolution (T0/T12/ $\Delta_{T0-T12}/\%$) was : Group1: 1.26/0.99 U/kg/j/-0.27U/kg/j/-20.5% - p=0.0008 and Group2: 1.31/ 0.97U/kg/j/ - 0.33U/kg/j/ -21.2% ; p=0.0005), not significantly different between both groups.



○ Conclusion

For both overweighted or severely obese T2D patients, AIP treatment didn't lead to significantly different metabolic results in terms of glycaemic control, weight evolution or insulin needs.

AIP treatment maintained its benefits even in case of severe obesity.

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