Insulin Lispro Changes Treatment Satisfaction Under Flexible, Functional Insulin Treatment.

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Our aim was to investigate and quantify the subjectively perceived advantages of insulin lispro L vs. regular insulin R for Functional Insulin Treatment (FIT), discriminating between basal, prandial and correctional use of insulin. 55 FIT-patients (age: 41,8±16,0, diabetes duration: 16,0±9,6, FIT-duration: 5,4±3,2 years) who routinely make acute corrections to their blood glucose levels with extra insulin as required were recruited and randomized into two study groups. After a run-in period of 8 weeks, parallel periods of 11 weeks each (either with L or R) were compared. Psychological measures included status (S) and change (C) versions of the Diabetes Treatment Satisfaction Questionnaire (DTSQ of C. Bradley 1994) extended with items designed for FIT. The DTSQ(C) relates the present treatment satisfaction of the subject to that in the preceding phase of investigation. While the R group did not change significantly, the L group increased treatment satisfaction in DTSQ(S) (intragroup comparison) in total satisfaction (p=0,01), and specifically in all categories related to correctional (speed: p<0,001; accuracy: p=0,001; general: p=0,001) and prandial use of insulin (efficiency to deal with blood glucose after meals; necessary timing of injections; general; all p-values <0,001). Increased predictability (p=0,047) and controllability (p=0,022) of blood glucose levels and increase in satisfaction with ability to perceive hypoglycaemia (p=0,035) were also found with lispro. DTSQ(C) augmented these perceived advantages with L (integroup comparison) particularly in categories “satisfied-with-your-current-treatment” (p=0,01), convenience (p=0,047) and flexibility of treatment (p=0,008), understanding of diabetes/blood glucose course (p=0,043), and “wish-to-continue-this-kind-of-treatment” (p=0,006). HbA1c decreased significantly with L from 7,5±0,9 to 7,2±1,0 (p=0,049), while remaining unchanged with R (p=0,9). Percentage of low blood glucose values tended to decrease with L (p=0,06). Insulin lispro improves treatment satisfaction under flexible, functional insulin use while reducing HbA1c.