

1. Results

Ten adults with T1DM and IAH [Gold score > 4] (age 45 ± 7.4 yrs, HbA1c 7.1 ± 1.1 , duration of diabetes 28 ± 12.5 years) took, in random order, 10mg glibenclamide or placebo for 7 days prior to a hypoglycemic clamp in which plasma glucose was reduced stepwise (5.0, 4.4, 3.8, 3.4, 2.8 and 2.4mmol/L). Symptom scores and catecholamines were measured. Cognitive function was assessed using 4-choice reaction time, n-back and Paired Associates Learning (PAL) tests.

SU improved mean reaction time to the n-back test during moderate hypoglycemia (1.4 vs 1.6 sec; $P=0.013$ at plasma glucose 2.8 mmol/l, with a trend to detection of hypoglycemic symptoms at a higher plasma glucose [3.0 ± 0.3 vs 2.6 ± 0.2 ; $p=0.09$] vs placebo. SU had no effect on peak symptom scores, catecholamine responses or performance of 4-choice reaction time and PAL.

These results were presented at the American Diabetes Association in 2015.