

SWITCHING TO INSULIN DEGLUDEC IN TYPE 1 DIABETES MELLITUS IN A REAL LIFE-SETTING

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BACKGROUND AND AIMS

Insulin Degludec (IDeg) is a novel basal insulin with a long duration of action at steady state, providing a flat and stable blood glucose lowering effect, with a reduction in risk of overall and nocturnal hypoglycemia.

IDeg was approved in Spain in January 2016. The aim of this work was to describe the effect of changing basal insulin to IDeg in type 1 diabetes mellitus (DM1) patients in a real-life setting.

MATERIALS AND METHODS

This was a prospective, observational, clinical follow-up of consecutive patients who switched to IDeg.

Information about HbA1c, insulin dose and frequency of hypoglycemia (self-reported, defined as blood glucose <70 mg/dl) was collected at baseline and after 3-6 months

RESULTS

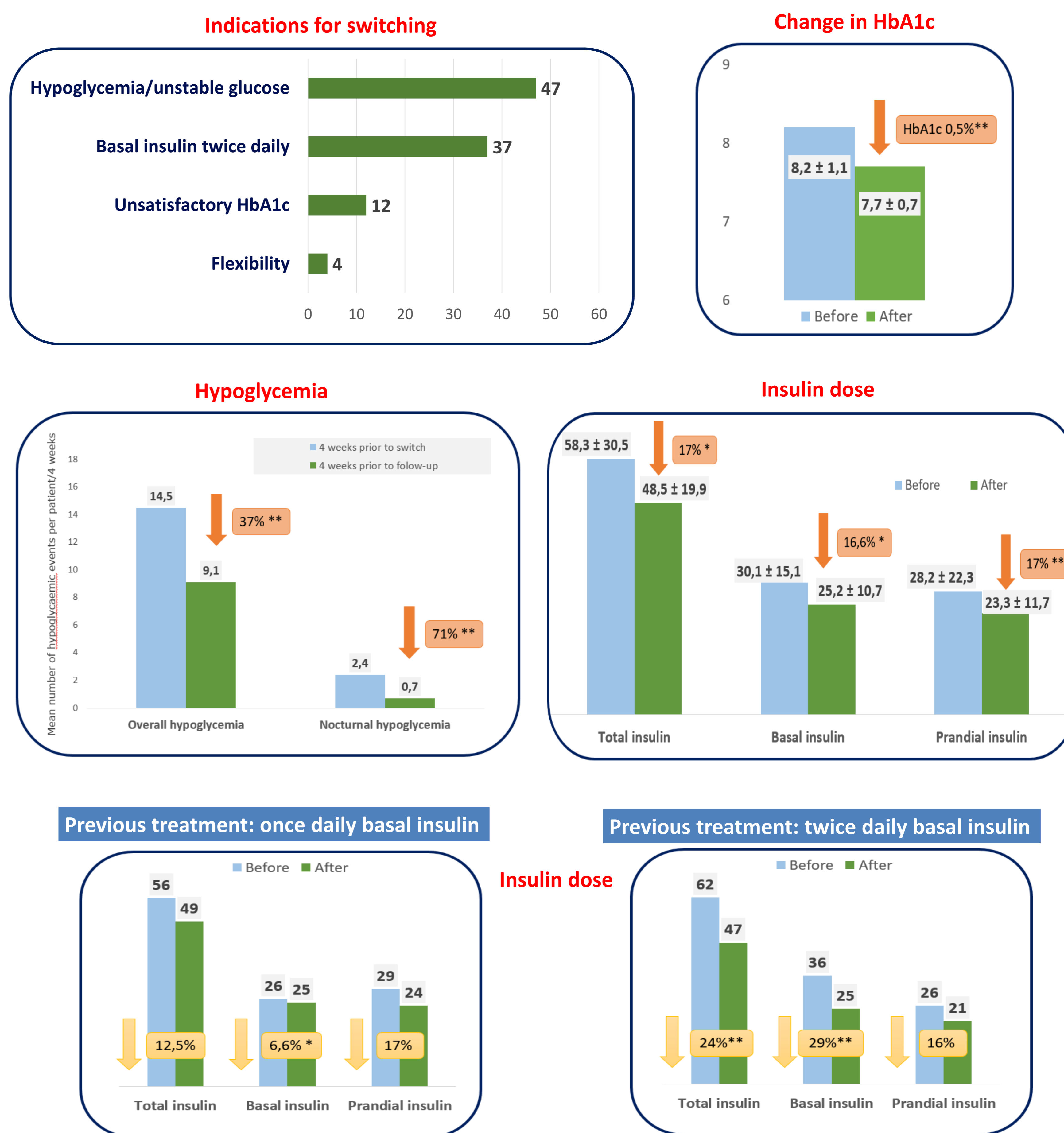
Between January 2016 and June 2016, 82 patients with DM1 were transferred to IDeg as their basal insulin. Of them, 51 patients (62%) had at least one follow-up visit with information about HbA1c and hypoglycemia, and were included in our analysis.

Mean age was 41.9 ± 9.6 years, 53% men/47% women.

82% were on insulin glargine, and 18% on insulin detemir.

Men (SD) time to follow-up was 16.4 ± 7 weeks.

	Prior switching to IDeg	After switching to IDeg	p
Metabolic control			
HbA1c (%)	8.2 ± 1.1	7.7 ± 0.7	0.002
Weight (kg)	75.2 ± 16.1	75.8 ± 16.5	0.078
Insulin dose			
Total insulin (UI)	58.3 ± 30.5	48.5 ± 19.9	0.001
Basal insulin (UI)	30.1 ± 15.1	25.2 ± 10.7	<0.001
Prandial insulin (UI)	28.2 ± 22.3	23.3 ± 11.7	0.047
Previous treatment: once-daily basal insulin			
Total insulin (UI)	56.1 ± 30.9	49.3 ± 20.7	0.071
Basal insulin (UI)	26.7 ± 10.4	25.0 ± 10.2	0.008
Prandial insulin (UI)	29.3 ± 25.7	24.3 ± 12.8	0.158
Previous treatment: twice-daily basal insulin			
Total insulin (UI)	62.2 ± 30.3	47.1 ± 19.2	0.003
Basal insulin (UI)	36.2 ± 20.1	25.1 ± 11.7	0.002
Prandial insulin (UI)	26.0 ± 14.8	21.6 ± 9.5	0.051
Hypoglycemia			
Overall hypoglycemia (times/month)	14.5 ± 8.5	9.1 ± 7.3	<0.001
Nocturnal hypoglycemia (times/month)	2.4 ± 2.8	0.7 ± 1.5	0.003



* p<0,005; **p<0,05

CONCLUSIONS

Switching from another basal insulin to IDeg can help to improve glycemic control, with less insulin, and reduce overall and hypoglycemic events.

More studies are needed to confirm these benefits over time.