

Abstrac 963: GLYCEMIC OUTCOMES OF 12 MONTH OF USING THE ADVANCED HYBRID CLOSED LOOP (TOUCHCARE NANO SYSTEM PATCH PUMP) IN PATIENTS WITH TYPE 1 DIABETES IN ARGENTINA

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Background and Aims

The objective was to evaluate the glyceimic outcomes in patients with Type 1 Diabetes (T1D) using the Advanced Hybrid Closed Loop (AHCL) TouchCare NANO patch pump during 12 month.

Variable	Baseline		1 month		3 month		6 month		9 month		12 month		Valor p (base vs 12M)
	Media	D.E.	Meda	D.E.	Media	D.E.	Media	D.E.	Media	D.E.	Media	D.E.	
HbA1c	7,27	0,69	{--	{--	6,83	0,69	6,82	0,68	{--	{--	6,73	0,79	0,0300
DDT	{--	{--	39,46	13,9	40,23	13,4	40,24	14,9	43,36	12,76	39,13	13,88	{--
HC DIARY	{--	{--	159,9	44,1	143,7	45,6	21,03	53,8	58,4	54,5	101,1	46,5	{--
BASAL	{--	{--	19,46	9,44	19,17	8,96	18,82	9,07	20,21	8,07	19,17	9,47	{--
BOLO	{--	{--	20	6,7	21,04	6,18	21,42	7,99	23,09	9,99	19,93	6,89	{--
AUTOBOLO	{--	{--	4,8	3,38	6,15	4,11	22,61	11,1	17,85	10,1	11,15	10,2	{--
TIR 70-180	61,58	15,19	72,76	8,68	70,98	6,97	71	8,27	69,67	9,27	74,7	7,2	0,001
TAR 180	26,34	10,19	16,21	4,81	17,28	4,53	16,9	6,1	17,3	7,1	14,59	6,1	0,001
TAR 250	10,12	8,1	7,56	4,64	8,27	3,48	7,09	3,65	8,8	3,51	6,31	3,65	0,203
TBR 70	1,99	1,57	2,5	2,12	2,59	2,19	3,28	1,09	3,1	1,19	3,33	1,09	0,136
TBR 54	0,53	0,85	1,02	1,01	0,87	1,36	1,29	1,29	1,04	1,06	1,04	1,29	0,045
TIR 70-140	37,89	16,22	50,58	7,94	48,32	7,55	50,57	9,12	48,54	8,22	54,91	9,12	0,001
Sensor Glucosa_Media	163,68	22,61	148,5	14	151,7	12,3	146,6	12,5	151	11,32	142	12,51	0,012
Ind Gest Glucosa	{--	{--	6,78	0,5	6,89	0,41	6,72	0,44	6,91	0,53	6,64	0,44	{--
Time in AUTOMODE	{--	{--	96,88	5,23	93,93	13,3	96,65	22,5	97,46	21,8	96,05	22,48	{--

Methods

Prospective open label single-arm, multi-center study in Argentina. We analyzed T1D patients that started AHCL between Aug-Sep 2023. Characteristics and glucometric data were evaluated at baseline and 1, 3, 6 and 12months. The primary outcome: time in range (TIR) time in tight range (TTIR) time below range (TBR) and HbA1c from baseline to study phase. The paired student t-test was used for statistical analysis and a P value < 0.05 was considered statistically significant.

Results

14 patients were studied. 10 (71.4%) female, the media of age: 22.7(8- 47 ±13.6), previous treatments were 42,8%(6) minimed 670, (4) MDI 28,5%. TIR increased from 61.58% ±15.19 to 70.98% ±6.97 in the 3rd month and reached to 74,7% in 12th month (p < 0.011), TTIR increased from 37.89% ±16.2 to 48.32% ±7.55 in 3rd month and reached 54,91 ±9,12 in 12 month (p < 0.010). Related to TBR was not significant difference at baseline and through the 12 month (p < 0.12). The HbA1c decreased from 7,27% ±0,69 at baseline to 6,73%±0,79 at 12 month(p <0.03). No episodes of severe hypoglycemia or DKA were reported.

Conclusions

The patients with T1D on any therapy who initiated the AHCL TouchCare NANO patch pump system improved their glyceimic metrics and achieved the internationally recommended goals of glyceimic control and this significantly achievement was observed during the 12 months.