Abstrac 1300: GLYCAEMIC CONTROL AFTER 3 MONTH OF STARTING ADVANCED HYBRID CLOSED-LOOP (PATCH PUMPNANO TOUCHCARE SYSTEM) IN TYPE 1 DIABETES MELLITUS PATIENTS

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Background and Aims

The aim was to evaluate effectiveness of the Advanced hybrid cloosed-loop (AHCL) (MEDTRUM NANOTOUCHCARE ™) in glycaemic control in a group of patients with type 1 diabetes (T1D) during the first threemonth.

Methods

Longitudinal multicenter study in patients with T1D who started a AHCL between june and october 2024.Baseline characteristics and glucometric data like Time in Range (TIR), Time in Thight Range (TTIR), Time above rage (TAR), Time below range (TBR) were evaluated at the beginning of the treatment and during the three month's.

Results

35 patients were studied, 30 (85%) female, 5 (15%) male. The median age 21.3 years and range (5-48). Type of training were on-site (20%), virtual (80%). The most frequent previous treatment were MDI+MCG (60%),Minimed 670G (28%), SOLO-MCG (12%). An increase was observed in TIR(70-180): 60.50% vs. 73.43%(P<0.0001) and TTIR(70-140): 37.5% vs. 51.3% (P<0.0001). A significantly decrease was observed in HbA1c: 7.47vs.6.83 (P 0.001) TAR 180: 24.7 vs. 16.8 (P 0.001) TAR 250: 11.3 vs. 7 (P 0.001). The CV decrease from 47 to 38 (P0.001). Between ages were differences in TIR and TTIR, those under 14 years old improve significantly but the greatest improvement was in over 35 years of age. No differences were found in TBR 70 and 54. The 76,8% of patients reached above TIR and 59% reached above TTIR.

	baseline		1 month		2 month		3 month		p Value
Variable	Media	ED	Media	ED	Media	ED	Media	ED	
HbA1c %	**7,43**	1,62	---------	--------	----------	--------	**6,83**	0,34	<0,001
Time 70-140%	**37,50**	8,34	**50,12**	11,29	**50,12**	10,64	**51,31**	9,82	0,658
Time 70-180%	**60,50**	17,19	**74,12**	12,12	**72,40**	9,18	**73,43**	8,79	<0,001
Above 180%	**24,70**	19,37	**16,41**	12,41	**16,41**	11,33	**16,82**	9,07	<0,001
Under 250%	**11,30**	4,3	**6,61**	1,79	**7,89**	1,76	**7,0**	1,6	<0,001
Under 70%	**2,80**	1,4	**2,29**	0,82	**2,44**	0,87	**2,28**	0,65	0,124
Under 54%	**0,80**	0,54	**0,69**	0,39	**0,74**	0,33	**0,65**	0,31	0,114
GLUC MED SENS	**164**	45,5	**147**	23,5	**149**	12,54	**148,8**	12,51	0,012
CV	**47**	7,6	**39**	2,10	**39**	2,01	**38**	1,98	0,001
IGG %	----------	----------	**6,74**	0,48	**6,86**	0,45	**6,84**	0,44	0,221
AUTOMODE %	----------	----------	**98,7**	7,88	**88,40**	8,56	**95**	8,34	0,634

Percentage of patients who achieved TIR and TTIR

		bsaeline	1 Mo	2 Mo	3 Mo	P value
Variable	Value TIR	%	%	%	%	
TIR 70-180	< 70 %	70,00	25,21	24,03	23,15	<0,001
	> 70%	30,00	74,79	75,97	76,85	<0,001
TIR 70-140	< 50%	76,43	44,13	42,79	41,00	<0,001
	> 50%	23,57	55,87	57,21	59,00	<0,001

Conclusions

With the AHCL Medtrum Nano TouchCare glycaemic outcomes improved with an increased in TIR, TTIR and a decreased in TAR and HbA1c. No sever hypoglycemia or CKD were reported.

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