

HbA1c of T1DM Patients before and after Transition - Single Center Experience

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INTRODUCTION

More than 1.1 million children and adolescents are living with Type 1 diabetes mellitus (T1DM) in 2019 worldwide¹. Transition period is considered a crucial phase in management of T1DM, where movement of adolescents to adult health care is initiated. During this period, physical, psychological and behavioral changes may make this interval becoming more challenging by which diabetes management can be affected. HbA1c worsening was reported 1-year post-transition by which there is continuous invitation to improve the transitioning process in order to avoid any deterioration in the management of diabetes and keeping the momentum.

AIM

Retrospective evaluation of HbA1c; 2 years before and 2 years after transition of patients living with T1DM.

METHOD

Retrospective Cohort study included all transitioned patients in 2017 and 2018 (Total 22 patients, 3 lost follow up). Their HbA1c results were reviewed two year before and after the transition. Data were obtained from Sultan Qaboos University Hospital electronic medical records. Data was analyzed by using SPSS and Excel.

RESULTS

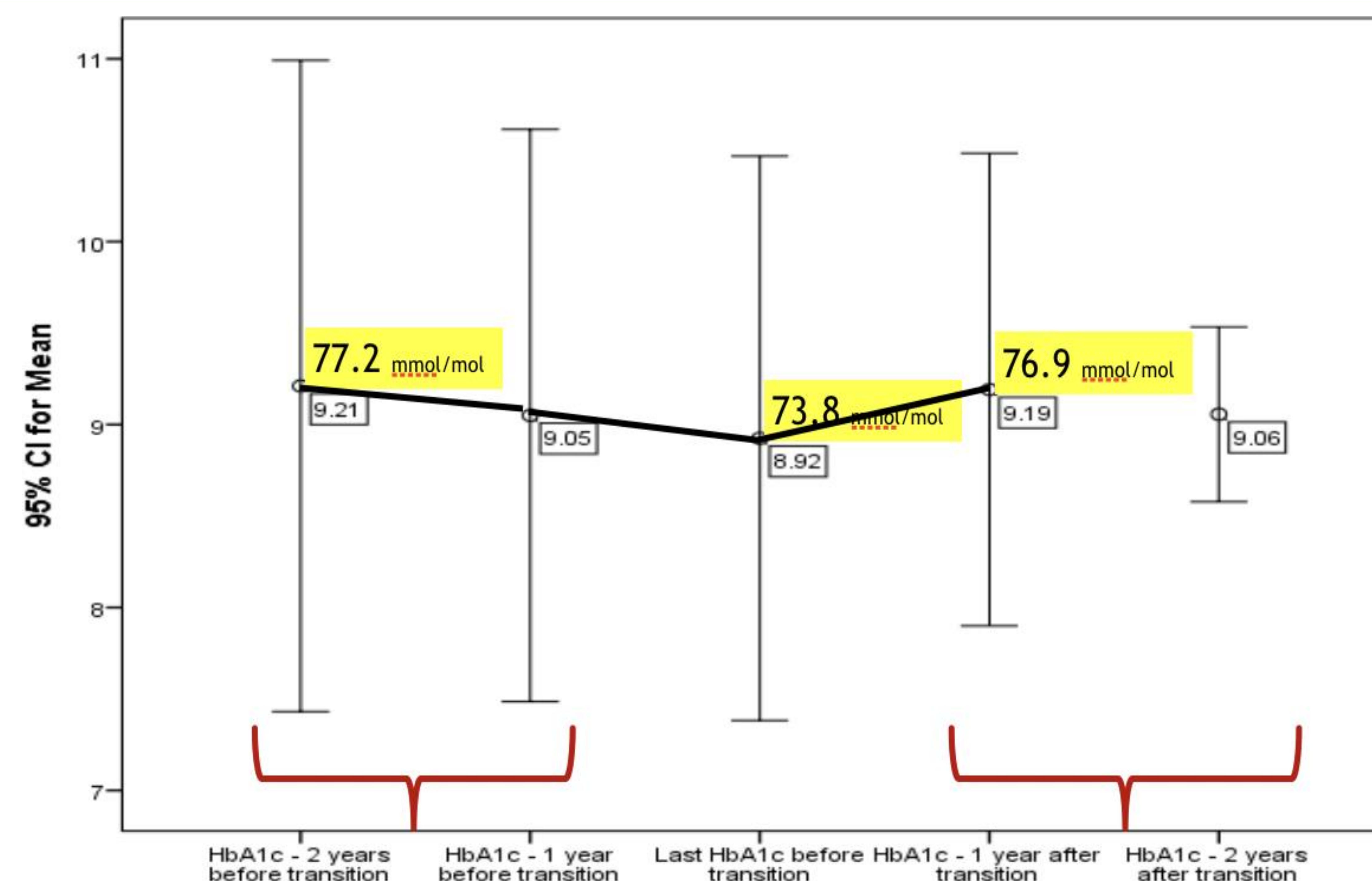
Total of 22 patients with T1DM transitioned to adult care, three of them lost follow up. 19 patients were included in our study (11M). Median age at transition was 16 years, ranged between 14 and 18 years.

Median HbA1c showed a steady improvement over 2 years before transition, from 77.2 to 73.8 mmol/mol (9.21% to 8.9%) in the last visit during pediatric follow up. But then a sudden worsening of HbA1c was observed one year after transition, median 76.9 mmol/mol (9.19%). These results could be attributed to multiple factors, but mainly the lack of a proper transition process.

Gender	Frequency		Percent	
	Frequency	Percent	Frequency	Percent
Male	11	57.9	14	5.3
Female	8	42.1	15	36.8
Total	19	100.0	16	52.6

Age at Transition

Age at Transition	Frequency		Percent	
	Frequency	Percent	Frequency	Percent
14	1	5.3	14	5.3
15	7	36.8	15	36.8
16	10	52.6	16	52.6
18	1	5.3	18	5.3
Total	19	100.0	Total	100.0



Median HbA1c over 2 years before and after transition

CONCLUSIONS

Transition period is a crucial interval that needs extra attention. Deterioration of HbA1c after transition has motivated both paediatric and adult diabetes teams in our center to take active steps towards developing a structured transition process.

REFERENCES

- 1 The International Diabetes Federation (IDF) Diabetes Atlas Ninth edition 2019.
- 2 Bronte Paice, Josephine Drew, Tabitha Randell, Pooja Sachdev & Jennifer Calvert 2018, A diabetes transition programme: outcomes and scope for improvement, Endocrine Abstracts 58 P072.

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