

Insulin Pump(IP) compared to those on Multiple Daily Injection(MDI) insulin regimen and assess if modality of BG monitoring has an impact on GC. To further assess the correlation of GC with age of the patient. Secondary outcomes included severe hypoglycemia and DKA episodes.

Methods Retrospective data was collected from FilePromaker database from June 2019 to October 2020 for all CYP T1D under the care of the Paediatric Diabetic Unit. This included data on age, management regime, modality of BG monitoring, HbA1c (laboratory and validated point of care blood tests at each diabetes related appointment), Diabetic Ketoacidosis (DKA) readmissions and severe hypoglycemia episodes. Mean HbA1c(mHb) was calculated for each patient during the study period in mmol/mol. GC was compared in two groups IP and MDI. Further analysis to evaluate impact of modality used for BG monitoring was undertaken. This included finger prick self blood glucose monitoring (SBGM) with a smart BG meter, flash glucose monitoring (FGM) or continuous glucose monitor (CGM). We also further looked at GC for children under 12 years(y) and over 12y in each group.

Abstract 94 Table 1 Insulin Delivery modality vs BG Monitoring modality vs Mean HbA1C

Mean HbA1C (mmol/mol)							
MDI(143)	CGM		FGM		SBGM		
	NO.		NO.		NO.		
<12	13	64.5	21	64.9	11	61.5	
>12	16		73.2	34	78.4	48	72.1
Overall	29		55		59		
IP (98)							
<12	25	56.1	8	63.9	0		
>12	20		60.3	22	66	23	64.4
Overall	45		30		23		

Results

- Total CYP T1D included in study were 241.
- MDI users were 143(60%) and IP users were 98(40%).
- Mean HbA1C in mmol/mol in IP group was 61.9(SD 10.23) & MDI group was 71.1(SD 17.34) which was statistically significant (t value of -4.74 and significance $p < 0.00$).
- GC overall in <12y vs >12y with mHb 60.98 vs 69.09($t = -58.91, p < 0.00$).
- In MDI group: mHb was highest in patients on FGM >12y=78.4; & lowest in those on SBGM <12y=61.5.
- However in Patients on IP: those on CGM and <12y had the lowest mHb of 56.1 and highest in those using FGM >12y=66.
- Readmissions with DKA episodes were 3, all above 12y of age, MDI(2) vs IP(1).
- Admissions with severe hypoglycemia were 8,75% on MDI and 25% on IP.
- Based on modality of BG monitoring: best GC noted in group IP using CGM vs SBGM in group MDI. GC was worst in those using FGM in both groups.

Conclusions

- IP usage led to statistically significant improved glycemic outcomes irrespective of age.

- CGM usage results in improved GC irrespective of whether using IP or MDI.
- FGM was beneficial in only those younger than 12y & offered no advantage in improvement of GC over SBGM in >12y irrespective of modality of Insulin delivery.
- Overall GC was best in <12y irrespective of Insulin Delivery Modality
- Complications of DKA and severe hypoglycemia episodes were more pronounced in those on MDI.

95 STUDY OF ASSESSMENT OF CARDIAC AND HEPATIC IRON OVERLOAD IN THALASSEMIA SYNDROME CASES

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Background Chelation therapy has been used to eliminate excess iron. The effective management of thalassemic patients, especially in the paediatric age group, requires optimal monitoring of the toxic effects of both iron overload and excessive chelation therapy. Serum ferritin has been widely used as a surrogate marker and a target ferritin level of 1,000 ng/ml is generally recommended.

Objectives Study of assessment of cardiac and hepatic iron overload in thalassemia syndrome cases

Methods This study was conducted in a tertiary care hospital where thalassemic patients receive regular transfusions. Patients aged 13–33 years coming for routine blood transfusions at the hospital blood bank and also out-patients coming for regular follow up and receiving transfusions at other blood transfusion centres between November 2011 and November 2012 were included in the study. A detailed history and physical examination were completed for all cases and the findings recorded on a proforma.

Results Out of 53 cases the average hepatic iron overload over a study period shows that 34% (18) cases have severe hepatic iron overload, 39.6% (21) cases have moderate hepatic iron overload, 17% (9) cases have mild hepatic iron overload and only 9.4% cases have normal hepatic iron status.

Conclusions Arterial stiffness increases significantly as cardiac iron overload increases but there is no correlation between arterial stiffness and hepatic iron overload. As stiffness index is an indirect measure of CIMT and early atherosclerosis, it also shows and indirect correlation of CIMT with increasing cardiac iron overload. Thus our findings support the hypothesis that iron overload is a risk factor for early atherosclerosis and cardiovascular disease.

97 SAFETY AND EFFICACY OF NURSE-LED SALINE ENEMA ADMINISTRATION FOR THE TREATMENT OF MECONIUM OBSTRUCTION OF PREMATURITY

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Background Meconium obstruction of prematurity (MOP) is the third most common cause of neonatal intestinal obstruction, especially in preterm infants. Delayed diagnosis and treatment of the condition can affect morbidity, mortality, hospital stay and the treatment cost of affected preterm infants. MOP can also lead to sub-acute/acute intestinal obstruction