685-P

ARE COMPLICATIONS PREVENTABLE WITH PERIODIC EDUCATION VIA TELEMEDICINE? 414 COMPLIANT T2D PATIENTS FOLLOWED UP FOR 19 YEARS

American Diabetes Association® | 78TH SCIENTIFIC SESSIONS
ORLANDO, FL • JUNE 22 – 26, 2018

JOTHYDEV KESAVADEV, ARUN SHANKAR, ASHWIN DAVID ASHOK, GOPIKA KRISHNAN, NEETHU ANNIE AJAI, GEETHU SANAL, JAYASREE AJITH, SOUMYA JAYANTHI, LAKSHMY RAMACHANDRAN, SUNITHA JOTHYDEV

JOTHYDEV'S DIABETES & RESEARCH CENTERS, KERALA, INDIA
www.research.jothydev.com, jothydev@gmail.com

BACKGROUND

Type 2 diabetes is a dynamic disease and as it progresses, complications tend to set in, which can be minimised only with timely and appropriate medications and behavioural therapies. Complications can essentially be prevented or delayed if patients keep achieving A1c, BP and cholesterol targets. Despite the availability of many new diabetes therapies, the outcomes however, still remain very poor, with the majority developing debilitating vascular complications. Diabetes management also entails huge self-management efforts like Self-Monitoring of Blood Glucose (SMBG), adhering to poly-pharmacy etc.

Diabetes Tele Management System (DTMS®), a sophisticated software integrated with a multidisciplinary diabetes care team, has been implemented at our diabetes clinic since 1998. It allows for customised titration of medications, diabetes education and behavioural modifications, through virtual consultations while precluding frequent physical visits. DTMS® helps ensure that patients are adherent to medications, visit the clinic for lab investigations to change therapies accordingly, perform recommended SMBG, and by large ensures that all major targets of therapy are achieved.

AIM

To assess long-term impact of DTMS® over 19 years, in successfully averting the complications in T2D.

METHODS

Patients enrolled in DTMS® and adhering to customised virtual consultations, with follow-up data available for 19 years were de-identified.

Baseline characteristics: n= 414, age 50.10±9.22 years, males 60.09%, T2D duration 11.44±6.85 years.

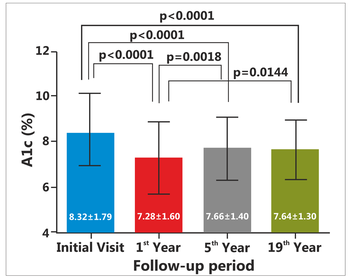
Inclusion criteria: A1c 6.5 ≥ 10.5%, virtual consultations ≥ 1 in 3 months, physical visits ≥ 1 in 3 years, and attended group diabetes education ≥ 1 in 3 years. Exclusion criteria: Chronic kidney disease (stages 4 and 5).

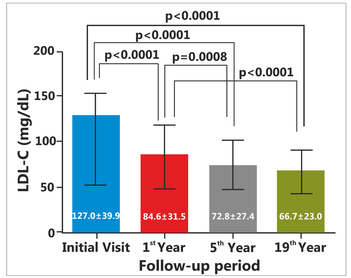
RESULTS

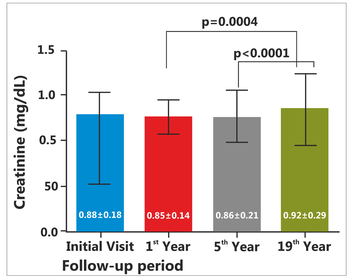
Baseline changes: A1c= -0.68%, LDL=-60.3 mg/dL, creatinine= 0.04 mg/dL, SBP/DBP= -7.2/-8.66 mmHg.
New onset CKD= 0.24%, CAD/CVA=2.4%, deaths=3.86%. Average physical visit frequency 2.04/year, virtual consultations 1.2/month.

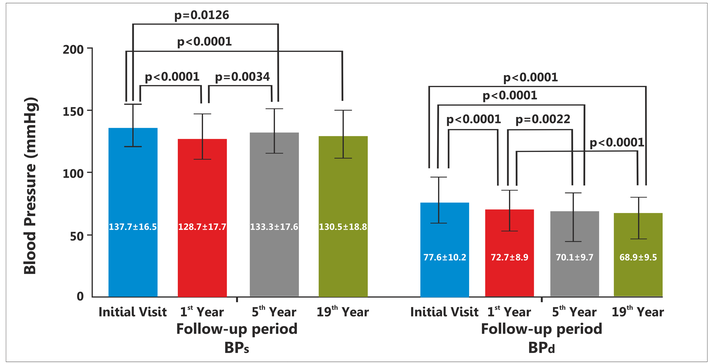
CONCLUSIONS

Optimal follow-ups through DTMS® empower our healthcare providers to ensure treatment compliance among the patients. This, in turn, escalates to a productive diabetes management with fewer complications. Vascular complications were successfully prevented, in 93.5% of the T2D subjects followed up for 19 years via our tele-management program.









REFERENCES

- Kesavadev J, Shankar A, Pillai PBS, Krishnan G, Jothydev S. Cost-Effective Use of Telemedicine and Self-Monitoring of Blood Glucose via Diabetes Tele Management System (DTMS) to Achieve Target Glycosylated Hemoglobin Values Without Serious Symptomatic Hypoglycemia in 1,000 Subjects with Type 2 Diabetes Mellitus-A Retrospective Study. Diabetes Technology & Therapeutics. 2012 Sep;14(9):772–776.
- Kesavadev J, Saboo B, Shankar A, Krishnan G, Jothydev S. Telemedicine for Diabetes Care: An Indian Perspective-Feasibility and Efficacy. Indian Journal of Endocrinology and Metabolism. 2015 Nov;19(6):764.