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BU-02119 REAL WORLD EVIDENCE OF IMPROVED GLYCEMIC CONTROL AMONG OLDER ADULTS WITH T2DM UNDERGOING INTEGRATED CARE FOR 10 YEARS

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BACKGROUND

Aging parameters have demonstrated to impact both the prevalence and development of insulin resistance, impaired glucose tolerance and diabetes complications. Therefore achieving glycemic targets, preventing diabetes comorbidities and reducing diabetes-related mortality among older adult diabetes subjects present significant individual, social, economic, and clinical challenges. Appropriate diabetes care for elderly thus demand rigorous and continued monitoring accompanied by integrated individual-centric approach together to ensure customized titration of medications, diabetes education, behavioral modifications to assure the quality of life. Virtual consultation via telemedicine program (Diabetes Tele Management System DTMS® launched in 1998) is demonstrated to be an effective strategy to guarantee close monitoring of diabetes patients attending our center.

AIMS

This study assesses the impact of continuous and systematic monitoring towards achieving sustained glycemic control and prevention of diabetes complications in elderly type 2 patients over ten years.

METHODS

Patients attending our diabetes center are encouraged to participate in our telemedicine program (DTMS®) which allows for customised titration of medications, diabetes education and behavioural modifications through virtual consultations while precluding frequent physical visits. It empowers the healthcare team to ensure that each patient is adherent to medications, visits the clinic for laboratory investigations to change therapies accordingly, is performing recommended SMBG, and largely ensures that apart from diabetes control, all other major targets of therapy are achieved. In this study, T2DM patients $\geqslant$60 years with A1c $\geqslant$7%, undergoing regular follow-up (virtual consultation $\geqslant$ 1 in 3 months, physical visit $\geqslant$ 1 in 3y, & attended group diabetes education $\geqslant$ 1 in 3y) for consecutive ten years via DTMS® were deidentified. Exclusion criteria: CKD (4 & 5). A1c targets were customized depending on co-morbidities. The data of 413 (67% males and 33% females) with average age 64±4 years and 13±5 years of diabetes duration and having mean A1c 8.17±2.31% were analyzed. Mean A1c of the cohort at baseline and at ten years were compared. Cardiac and renal outcomes were assessed during physical visits.

RESULTS

Significant improvement in A1c(p-value: 0.0004)) was demonstrated in older adult diabetes subjects undergoing routine follow up and integrated medical care over ten years. Male subjects showed improved and sustained glycemic control with a statistically significant reduction in A1c (-0.98, p-value 0.00027) than women(-0.73, p-value 0.05). Longitudinal analysis of the ten years follow up data showed lesser instances of severe hypoglycemia for subjects with frequent follow-up. The laboratory parameters demonstrated improved cardiac and renal outcomes through integrated care and telemonitoring. In contrast, elderly subjects with irregular follow up visits presented with worsened glycemic control.

DISCUSSION

This study demonstrated the impact of integrated care and continuous follow-up in achieving glycemic targets thus preventing diabetes-related complications in a cohort of older adults with diabetes.

REFERENCES

1. American Diabetes Association (2019) 12. Older Adults: Standards of Medical Care in Diabetes-2019. Diabetes Care 42: S139-S147.
2. Kesavadev J, Short KR, Nair KS. Diabetes in old age: an emerging epidemic.J Assoc Physicians India. 2003 Nov;51:1083-94.