



Using interdisciplinary team collaboration to enhance the effectiveness of basal insulin therapy for newly diagnosed type 2 diabetes patients

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Background and objective

Diabetes prevalence in Taiwan has exceeded 9.32%, with over 2.2 million patients. Active blood glucose control can reduce complications and improve patient-centered medical decisions. Insulin therapy is essential in treating type 2 diabetes, as some patients require it to achieve blood glucose control goals. This study investigated the effectiveness of basal insulin therapy for one year in newly diagnosed type 2 diabetes patients using a cross-disciplinary team collaboration model.

Methods/intervention

Between January 2020 and May 2021, newly diagnosed type 2 diabetes patients with a Glycosylated Hemoglobin (HbA1c) $\geq 9\%$ were recommended to use basal insulin therapy and offered a health lecture activity developed by the team. The activity used peer group teaching, with physicians explaining insulin therapy, diabetes educators demonstrating insulin injection and self-monitoring of blood glucose, and nutritionists teaching healthy meal planning. The activity provided individualized education to correct daily eating habits and increase the effectiveness of blood glucose control.

Results

Out of 136 newly diagnosed patients, 54 received basal insulin therapy. The team invited 75 patients to participate in a cross-team health lecture, and 43 agreed to receive basal insulin therapy. After one year, patients who used basal insulin had an average HbA1c of $(6.8 \pm 1.1)\%$ at 3 months, $(6.0 \pm 0.6)\%$ at 6 months, $(6.3 \pm 1.0)\%$ at 9 months, and $(6.7 \pm 1.2)\%$ at 12 months. Of those who used basal insulin, 27 stopped using it within a year, and three used it for 1 to 1.5 years. All patients who achieved good control, with HbA1c $\leq 7\%$, met the standard.

Keywords

type 2 diabetes, newly diagnosed, basal insulin therapy

Conclusions/lessons learned

The use of interdisciplinary teamwork and encouragement of a healthy lifestyle can help achieve treatment goals for newly diagnosed type 2 diabetes patients who undergo basal insulin therapy. Some patients are able to maintain good blood sugar control even after discontinuing basal insulin. The use of a healthy plate concept with visual and quantitative design can also help adjust dietary habits and self-management, effectively aiding newly diagnosed diabetic patients in achieving good glycemic control.

Relevance to HPH

Providing complete health promotion measures and professional medical education can improve the quality of diabetes care and reduce medical resource spending, ultimately achieving a win-win situation.