

Frequency and predictors of self reported hypoglycemia among type 2 diabetes outpatients in Vietnam

Khoa VT¹, Phuong CTT¹, Hung LD¹, Khue NT², Goto A³, Koriyama C⁴, Yokokawa H⁵
¹People's Hospital 115, ²Medical Association HCMC, ³Fukushima Medical University, ⁴Kagoshima University and ⁵Juntendo University



Background:

Hypoglycemia is one of the most serious complications among type 2 diabetes patients, but not paid sufficient clinical attention in Vietnam.

Purposes:

Our study aims are to determine the frequency and predictors of self-reported hypoglycemia in type 2 diabetes outpatients.

Methods:

A cross-sectional survey with 669 subjects was conducted at People's Hospital 115, HCM city in 2017. This program was announced through leaflets and hospital postings. We included type 2 diabetes patients, who were 18 years old or older and with a disease duration of at least 1 year. Hypoglycemia was defined as an experience of at least four typical symptoms such as hunger, sweating, tremor, headache, dizziness, blurred vision and confusion over the past 6 months. Identification of hypoglycemia did not include self-blood glucose measurement.



Fig 1. Hypoglycemia tear sheet for doctors

Fig 2. Hypoglycemia booklet for patient education



Results:

The prevalence of self reported hypoglycemia was 58% among Vietnamese diabetic outpatients.

Hypoglycemia status was associated with insulin use [adjusted odds ratio (aOR)=6.46), 95% confidence interval (95%CI 3.88;10.7)], history of hypoglycemia hospitalization over the past 12 months (aOR=5.54, 95% CI 1.79;17.2), and sulfonylureas use (aOR=1.93, 95% CI 1.17;3.17)

Risk factors	Adjusted OR (95% CI)	p value
Insulin use	6.46 (3.88 – 10.7)	0.000
History of hypoglycemia hospitalization	5.54 (1.79 – 17.2)	0.003
Sulfonylureas use	1.93 (1.17 – 3.17)	0.010

(Logistic regression was used. Significant factors in the univariable analyses were entered into the multivariable analysis: diabetes duration, HbA1c, insulin use, history of hypoglycemia hospitalization, sulfonylurease use, and history of retinopathy)

Conclusion:

Self-reported hypoglycemia was frequent among Vietnamese diabetic patients. Past admission of hypoglycemia and use of agents (insulin, sulfonylureas) were significant predictors of hypoglycemia.

Clinical implication:

Prevalent self-reported hypoglycemia among Vietnamese type 2 diabetes patients could be prevented by increasing awareness among patients and physicians with regard to more careful treatment for those with history of hypoglycemia hospitalization and under medications.