



Letter to the Editor

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Corresponding author:

Yushi U. Adachi, M.D., Ph.D.

Department of Anesthesia and Intensive Care Medicine, International University of Health and Welfare, 537-3 Iguchi, Nasushiobara city, Tochigi, Japan

Tel: +81-287393060

Fax: +81-287393001

Email: yuadachi@iuhw.ac.jp

ORCID: <https://orcid.org/0000-0001-8899-5708>

Pregabalin-induced hypoglycemia in a dialysis patient

Hanayo Masaki¹, Takahiro Tamura², Yushi Ueda Adachi³, Maiko Satomoto⁴

¹Department of Anesthesia, International University of Health and Welfare, Nasushiobara,

²Department of Anesthesiology, Nagoya University Graduate School of Medicine, Nagoya,

³Department of Anesthesia and Intensive Care Medicine, International University of Health and Welfare, Nasushiobara, ⁴Department of Anesthesiology, Ohmori Medical Center, Toho University, Tokyo, Japan

We experienced a case of unexpected severe hypoglycemia in a patient in whom pregabalin was newly administered. Informed consent was obtained from the patient and officially saved. The acceptance of submission was obtained from the institute. A 73-year-old man (height: 164 cm, weight: 50 kg) with diabetes had received hemodialysis for diabetic nephropathy for 1 year. Dialysis was smoothly introduced and the course of diabetes was favorable. Recently, he complained of chest oppression and an emergency percutaneous coronary angioplasty was conducted through the right femoral artery. After the intervention, ischemic changes were observed on the right lower extremity. The ischemia was not ameliorated after the emergency endovascular femoral stenting and thus, right limb amputation was carried out. No further adverse complication was observed. The daily living activity of the patient was fully restored. Although fasting blood sugar (FBS) control level worsened during the event, he could freely eat after the wound was healed and the FBS level was steadily maintained around 170 mg/dl.

One month later, the patient complained of pain on the leg stump, and 75 mg pregabalin was administered. After 3 days of consecutive administration, the dose was doubled to 150 mg a day. Three days later, the patient visited the hemodialysis station and the routine regimen of dialysis was initiated, but the technician in charge noticed that the patient was drowsy. Immediately after the dialysis was started, an emergency laboratory examination revealed severe hypoglycemia (56 mg/dl) despite the use of dialysate containing 100 mg/dl glucose. The hemodialysis was promptly canceled. The patient was administered 20 g glucose and was transferred to the intensive care unit (ICU). Consciousness was rapidly regained, and hemodialysis was re-conducted at the ICU.

Pregabalin-induced hypoglycemia was strongly suspected because no other treatment was changed. The pain regimen was changed to opioids. After the cessation of pregabalin and hemodialysis in the ICU, the FBS level recovered to between 130 mg/dl and 220 mg/dl the next day, and he developed no hypoglycemic symptoms during the 3-day observation period before he was discharged from the hospital.

This is the first report describing the possibility of acute pregabalin-induced hypoglycemia in hemodialysis patients. One of the most common symptoms is dizziness [1]. Dizziness is one of the symptoms of hypoglycemia. Recently, few cases reported pregabalin-induced hypoglycemia after long-term treatment [2,3]. Pregabalin is mainly (> 90%) eliminated through the kidney and the pharmacokinetics depends on renal function [4]. The exact mechanism of hypoglycemia induced by pregabalin is still unknown [5].

Pregabalin is a well-known and effective drug against neuropathic pain including diabetic neuropathy and is administered to patients by many physicians [1]. Attention should be paid to this acute and critical adverse effect of this popular drug used in cases

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of chronic pain treatment, even in short-term medication.

Conflicts of Interest

No potential conflict of interest relevant to this article was reported.

Author Contributions

Hanayo Masaki (Conceptualization; Investigation; Writing – original draft; Writing – review & editing)

Takahiro Tamura (Conceptualization; Writing – original draft; Writing – review & editing)

Yushi Ueda Adachi (Conceptualization; Project administration; Writing – original draft; Writing – review & editing)

Maiko Satomoto (Conceptualization; Writing – original draft; Writing – review & editing)

ORCID

Hanayo Masaki, <https://orcid.org/0000-0003-4056-5340>

Takahiro Tamura, <https://orcid.org/0000-0001-6916-9988>

Yushi Ueda Adachi, <https://orcid.org/0000-0001-8899-5708>

Maiko Satomoto, <https://orcid.org/0000-0003-2768-7482>

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