

中文題目：反覆使用長效胰島素-Toujeo 自殺 – 病例報告

英文題目：Repeat suicide with toujeo: a case report

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Background:

Insulin has been widely utilized to control blood glucose in diabetic patients used since 1921. Toujeo, a drug with insulin glargine as the active ingredient, is a recent long-acting basal insulin treatment, but presents a risk for patients who may try to commit suicide with insulin. We report a case in which a patient repeatedly used Toujeo to attempt suicide.

Case report:

A 48-year-old female had medical history of major depression and diabetes mellitus under insulin treatment [Toujeo 35U/30U BID SC]. She had self-administered 1300 units of her Toujeo in a first attempted suicide. After 4 hours later, she felt discomfort, then she was sent by her friends to hospital. On initial emergency department, she was conscious and stable vital signs. Her finger-stick glucose level was 52 mg/dL. A dose of 10% dextrose was given at around 70mL/hr, and another dose of 50% dextrose IV was also given following a severe hypoglycemia episode. After 82 hours, she was transfer to Endocrine ward for closed monitoring, the Psychiatry doctor was consulted for intervention. Her hypoglycemia episodes finished after 9th day of follow up, and she discharged on the 12th days. (Figure 1)

However, 3 days after discharging, she again self-administered again 1600 units of her Toujeo in a second suicide attempted. She went to our emergency room for help after 2 hours later without any discomfort. However, a hypoglycemic episode was noted since 12hrs later. After 20 hours, she was transferred to the hospital medicine ward for closed monitoring, and consulted Psychiatry doctor again. A 20% dextrose IV solution was given at 50mL/hr, and a 50% dextrose IV push was also given following a hypoglycemic episode. The dosage was then changed to 50% dextrose IV

at 40ml/hr from the central line, and KCl fluid was also supplied to prevent hypokalemia. Her hypoglycemic episode was improved. However, a hypoglycemic episode was still noted at night. Her electrolyte level was monitored, and showed no abnormal. Her hypoglycemia episodes finished after 7th day of follow up, and she discharged on the 9th days. (Figure 2)

Discussion:

The causes of hypoglycemia are typically divided into endogenous causes, and exogenous causes from hyperinsulinemia. The hypoglycemic effect of exogenous injection of insulin leads to its use as a method of deliberate suicide, where a patient may hoard the drug then inject a large amount at once. (1) Suicide by Injection of long-acting or short-acting insulin suicide has a partial delay effect. Injecting a large amount of insulin into the tissue can cause compression of blood flow, resulting in a slow release of insulin. Hypoglycemia may also be affected by patient's liver and renal function, and lipoatrophy at the injection site or circulating antibodies against insulin may cause a delay effect.

REFERNCES

1. Hawton K, Clements A, Simkin S, Malmberg M. Doctors who kill themselves: A study of methods used for suicide. Q J Med 2000;93:351-7.