Nausea and vomiting due to insulin glargine in patient with type 1 diabetes mellitus

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Insulin glargine is a new insulin analogue with delayed absorption and a prolonged duration of action. A 34 year old woman who had had type 1 diabetes for six years had previously been treated with premixed biphasic insulin (Humulin M3), twice a day. This regimen had been changed to a basal bolus regimen of Actrapid and Insulatard during pregnancy, but she subsequently resumed twice daily injections (but this time with Maxisafe). She reported no side effects on any of these preparations. She had no other serious illness and no complications of diabetes.

After a period of suboptimal glycaemic control, she was changed to a basal bolus regimen of Actrapid and insulin glargine. Within 24 hours she complained of nausea. Pregnancy and infection were excluded, but she remained nauseous for six weeks. During this time her glycaemic control improved (her HbA1c concentration decreased from 9.8% to 8.6%), but the nausea began to lead to frequent vomiting, which could not be controlled with antiemetics. Insulin glargine was replaced with Insulatard, and her symptoms settled over two days.

Over the next three months she remained well, but her glycaemic control deteriorated and she requested that she try insulin glargine again. Nausea returned within a few hours and continued for several days until insulin glargine was again withdrawn.

Glargine is usually well tolerated, with side effects limited to irritation at the injection site. Nevertheless, prolonged periods of nausea may be erroneously attributed to gastric autonomic neuropathy, leading to unnecessary investigation and treatment.

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