



Nationwide cohort study of post-gastric bypass hypoglycaemia including 5,040 patients undergoing surgery for obesity in 1986-2006 in Sweden.

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Abstract: AIMS/HYPOTHESIS: Symptomatic hypoglycaemia with related confusion, syncope, epilepsy or seizures is a newly recognised complication of gastric bypass surgery for obesity. The incidence of these conditions is not known. We therefore studied the incidence of post-gastric bypass hypoglycaemia and related symptoms in patients who have undergone gastric bypass and a reference cohort from the general population of Sweden. METHODS: This is a nationwide cohort study based on national registries with 5,040 persons who underwent gastric bypass, vertical banded gastroplasty or gastric banding for obesity in Sweden between 1 January 1986 and 31 December 2006 and a cohort of ten referents per patient matched for sex and age randomly sampled from the general population. The incidence rates of hospitalisation for hypoglycaemia, confusion, syncope, epilepsy or seizures before and after dates of surgery or inclusion in the reference cohort were studied. RESULTS: Preoperative incidences of hospitalisation for hypoglycaemia were similar in the surgical and referent cohorts. After gastric bypass surgery, the adjusted hazard ratios were significantly elevated for hypoglycaemia (2.7 [95% CI 1.2-6.3]), confusion (2.8 [1.3-6.0]), syncope (4.9 [3.4-7.0]), epilepsy (3.0 [2.1-4.3]) and seizures (7.3 [5.0-10.8]). The proportions of gastric bypass patients and reference participants affected by hypoglycaemia were very low (0.2% and 0.04%, respectively). There was no increased risk of hypoglycaemia after vertical banded gastroplasty or gastric banding compared with the referent population. CONCLUSIONS/INTERPRETATION: Obese persons who have undergone gastric bypass have an increased risk of hospitalisation for diagnoses associated with post-gastric bypass hypoglycaemia, although few patients are affected.

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