

# NUTRITIONAL POLYNEUROPATHY FOLLOWING BARIATRIC SURGERY: A COMPLICATION THAT CAN BE PREVENTED

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## Background

Bariatric surgery is considered to be the most effective treatment of morbid obesity and improvement of obesity-related comorbidities, such as type II diabetes. However, both peripheral and central neurological complications can occur after bariatric surgery. Such complications tend to occur more frequently after bypass surgery than after sleeve gastrectomy

## Case report

We report a 38 years old lady who had restrictive bariatric surgery in the form of sleeve gastrectomy. She presented couple of months later with severe nausea and vomiting. A month later she developed progressive lower limb weakness and paraesthesia in upper and lower limb with urinary incontinence (flaccid tetra-paresis). Initially treated as Guillain-Barré syndrome with intravenous immunoglobulins. Further investigations showed low folate with raised homocysteine which raised the possibility of nutritional polyneuropathy. Her Nerve Conduction Studies showed axonal sensory more than motor peripheral polyneuropathy. She was treated with high dose of Vitamin B12 and Folate with good effect but not fully recovered. In addition she received Thiamine replacement. She had paraesthesia in upper and lower limbs associated with neuropathic pain in both feet. Her lower limbs were weaker as compared to her upper limbs. She had impaired proprioception in both feet. In addition she presented with impaired short term memory. Her brain scans were normal. It is not clear if her short term memory impairment is directly related to her nutritional polyneuropathy.

## Conclusion

Peripheral neuropathy is one of the common complications following any type of bariatric surgery affecting 5-16% of patients. It is a collection of disorders arising from damage in the somatosensory system. It usually presents years later and progresses insidiously but may be seen early in the course. Vomiting following sleeve gastrectomy can exacerbate nutritional deficiencies and lead to poly or mononeuropathy.

**Keywords:** Bariatric surgery, polyneuropathy