

Sequential Localised Neuropathic Itch Following Drastic Weight Gain and Loss

Dear Editor,

A 56-year-old Indian woman with obesity underwent bariatric surgery (laparoscopic sleeve gastrectomy). She had gained 10 kg over the 3 years preceding the surgery after changing to a sedentary job. For 2 years, she had been having localised itch over the paraspinal region of her left upper back. Examination revealed a localised hyperpigmented patch over her left upper back (Fig. 1). The diagnosis was notalgia paresthetica (NP).

After her surgery, the patient had rapid slimming initially. For the first 2 weeks postsurgery, the patient was only given clear feeds and had rapid weight loss during this period. She lost 10 kg in the first 3 months postsurgery. Three days postsurgery, she started feeling numbness over her right lower thigh and 13 days postsurgery, she felt itch and pain over the same area with the disappearance of the numbness. For the next 3 months, she experienced intermittent itch and pain over an area that correlated with the distribution of the lateral cutaneous branch of the femoral nerve and was diagnosed to have meralgia paresthetica (MP) (Fig. 2). There were no other external pressures on the nerve such as tight clothing or pressure during surgery.

Discussion

NP is not a rare condition but it is greatly under-recognised. NP is a form of peripheral sensory mononeuropathy and is thought to be secondary to nerve impingement or trauma affecting the posterior rami of the spinal nerves.¹ It may result from compression by a space-occupying lesion or musculoskeletal structures, but no definite cause can be identified in most cases.

MP is another type of localised neuropathic dysaesthesia but it is rare. It is secondary to nerve entrapment of the lateral femoral cutaneous nerve, typically presenting with numbness, burning pain, itching or a tingling sensation localised to the unilateral anterolateral thigh.¹ Numerous predisposing factors have been suggested, including diabetes mellitus, alcoholism, obesity (BMI >30), pregnancy, prolonged sitting, strenuous activity, direct trauma, lumbar disc herniation, iliaceous haematoma and tight clothing.^{1,2} Following gastric bypass surgery, the incidence of MP is estimated to be 0.5% to 1.4%.³ Compression of the thigh by the Gomez retractor has been a proposed mechanism.⁴ However, MacGregor and Thoburn reported 11 cases of MP, most beginning shortly after surgery (2 to 13 days),



Fig. 1. A hyperpigmented patch at the localised area of itch over the paraspinal region of the patient's left upper back, corresponding to the dermatome of the dorsal ramus of the T2 spinal nerve. This is a typical presentation of notalgia paresthetica.



Fig. 2. A localised area of excoriations without the presence of a primary dermatosis over the patient's right lower lateral thigh, which corresponded to the area of itch and pain. Impingement of the lateral femoral cutaneous nerve led to meralgia paresthetica.

despite using an upper midline incision to avoid pressure at the hips.⁵

Our patient appears to be susceptible to different nerve impingements with changes in her habitus. Her weight gain may have led to nerve compression due to a change in posture of her shoulders and back or a shift in positions of muscles due to fat accumulation. Similarly, rapid weight loss with decreased subcutaneous tissue can similarly lead to compression of the lateral femoral cutaneous nerve under the inguinal ligament. To our knowledge, there have not been previous reports of patients experiencing multiple localised neuropathies following drastic weight changes.

REFERENCES

1. Runger AM. In: Bologna JL, Jorizzo JJ, Schaffer JV, editors. *Dermatology*. 3rd ed. Beijing: Elsevier; 2012. p 120-3.
2. Cheatham SW, Kolber MJ, Salamh PA. Meralgia paresthetica: a review of the literature. *Int J Sports Phys Ther* 2013;8:883-93.
3. Koffman BM, Greenfield LJ, Ali II, Pirzada NA. Neurologic complications after surgery for obesity. *Muscle Nerve* 2006;33:166-76.
4. Grace DM. Meralgia paresthetica after gastroplasty for morbid obesity. *Can J Surg* 1987;30:64-5.
5. Macgregor AM, Thoburn EK. Meralgia paresthetica following bariatric surgery. *Obes Surg* 1999;9:364-8.

Carina M Grönhagen, ¹*MD, PhD*, Hong Liang Tey, ^{1,2}*FRCP(Edin), FAMS*

¹National Skin Centre, Singapore

²Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

Address for Correspondence: Dr Tey Hong Liang, National Skin Centre, 1 Mandalay Road, Singapore 308205.

Email: teyhongliang111@yahoo.com