



Online Case Report

Meralgia paraesthetica – an addition to ‘seatbelt syndrome’

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A case of meralgia paraesthetica linked to ‘seatbelt syndrome’.

Key words: Meralgia paraesthetica – Seatbelt syndrome – Neuropraxia

A previously fit and well 35-year-old man was the driver of a car involved in a head-on collision with another car while travelling at approximately 40 mph. He was noted to have an abrasion caused by his seatbelt across his chest (Fig. 1) and left side of abdomen, which extended as far as the antero-lateral region of his left hip (Fig. 2). The lateral third of his right clavicle was fractured. There was marked tenderness over the lateral third of his left inguinal ligament.

One of the patient’s major concerns was an area of paraesthesia over the antero-lateral aspect of the left thigh, corresponding to the innervation of the lateral cutaneous nerve of the thigh. He was certain sensation had previously been normal in this area.

The X-ray of his pelvis was unremarkable. It was concluded that the area of paraesthesia was secondary to a neuropraxia of the left lateral cutaneous nerve of the thigh

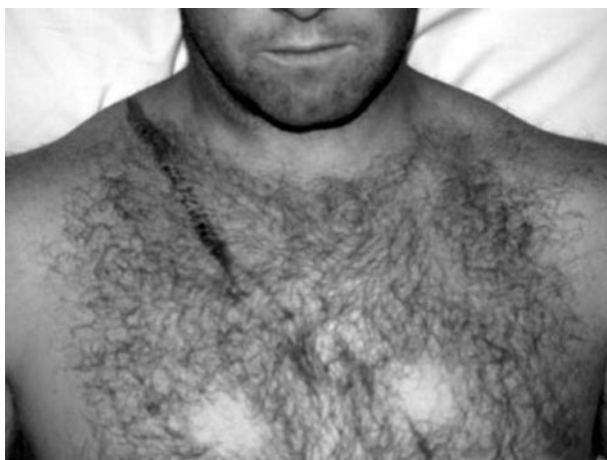


Figure 1 Photograph showing seatbelt sign across the patient’s chest.



Figure 2 Bruising over the anatomical landmark of the lateral cutaneous nerve of the thigh.

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caused by a tightening of his seatbelt as it came over his lap. The paraesthesia in this area gradually resolved over the following weeks.

Discussion

Compression of the lateral cutaneous nerve of the thigh (L2/3) in the region of the anterior superior iliac spine or injury to the nerve along its subcutaneous course results in hypo-aesthesia and dysaesthesia in the area of its cutaneous distribution. This condition, known as meralgia paresthetica, may develop spontaneously. It may be caused by lumbar disc protrusion, impingement of the nerve, probably being secondary to abnormal posture, or to persistent regional muscle spasm.

'Seatbelt syndrome' is a term used to describe a number of injuries that can occur secondary to the wearing of seatbelts by individuals involved in road traffic accidents. Injuries may include clavicle fracture, sternal fracture,¹ numerous abdominal and visceral injuries,² and even vascular injury.³ Meralgia paraesthetica due to this mechanism, to our knowledge, has not previously been reported.

While the course of the lateral cutaneous nerve of the thigh is somewhat variable, it usually reaches the thigh by

passing over the sartorius muscle, about 2.5 cm below the anterior superior iliac spine. The nerve then becomes superficial, penetrating the fascia lata about 10 cm distal to the inguinal ligament. Alternative paths include its passing beneath or through this muscle. It is over this point, just beneath the anterior superior iliac spine, that most seatbelts pass on their point of attachment. It is easy to comprehend how this nerve might be at risk in instances where there is a sudden deceleration with tightening of the seatbelt as occurs in the case of a head-on impact.

In this case spontaneous recovery occurred. In the absence of a pre-existing anatomical propensity to meralgia paraesthetica, neuropraxia caused by the blunt impact of a seatbelt might be expected to recover without intervention.

References

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