Neuropathy of the lateral cutaneous nerve of the thigh: an avoidable complication of renal transplantation

Sir,

Nerve injuries following renal transplantation are an unusual complication and, although not serious, these can be avoided by careful placement of self-retaining retractors. We suggest a way of avoiding such injuries by pre-operative mapping of the nerves. A review of literature suggests that these injuries can be due to mechanical injury by retractors, ischaemia, compression by haematoma or due to progressive uraemia.

Case 1: A 41 year old man, following an uneventful renal transplant complained of numbness along the right lateral thigh with paraesthesia. Sensory nerve conduction studies were done using needle electrodes by recording over bilateral lateral femoral cutaneous nerves with stimulation proximally, above the inguinal ligament. On the unaffacted side the sensory nerve action potentials could be recorded and averaged with a resulting latency of 3.1 ms, and peak latency 3.9 ms, amplitude recorded was 11 uv and conduction velocity measured was 50 m/second, which is within normal limits. On the affected side stimulation did not record any sensory nerve action potentials. Electromyographic examination of the right vastus lateralis, thigh adductors and gluteus medius showed normal insertional activity and electrical silence at rest. Motor unit potentials were of normal morphology, with a full interference pattern throughout.

Case 2: A 51 year old man who received a renal transplant to his left side developed similar sensory symptoms as in case 1. Both patients had a normal renal scan on the first postoperative day and a normal ultrasound examination of renal scan of the transplanted kidney on the fifth postoperative day.

Meralgia paraesthetica or lesions of the lateral femoral cutaneous nerve of the thigh have been known for a long time; however, involvement of this nerve after renal transplantation is uncommon and can be a source of annoyance to the patient. We routinely use the Book–Walter frame with fixed retractors to obtain good exposure, the casual placement or excessive retraction may have caused the injury as both cases had no intra-operative or postoperative complications such as delayed graft function, excessive bleeding or long anastomosis times. It is interesting to note that there are a number of anomalies associated with the passage of the nerve. The lateral femoral cutaneous nerve of the thigh arises from the dorsal branches of the second and third lumbar ventral rami, emerges from the lateral border of the psoas major, crossing the iliacus obliquely towards the anterior superior iliac spine. The nerve could pass at any point within several inches of the actual tip of the anterior superior iliac spine and then may pass through or below the ligualal ligament. For example, Jefferson and Eames found anomalies in five of 12 nerves removed from normal autopsies.

To avoid this complication it would be advisable to place retractors at least 2.5 inches medial to the anterior superior iliac spine and well away from the femoral nerve and to avoid excessive retraction. Another solution would be to map the lateral cutaneous and femoral nerves pre-operatively so as to avoid direct retractor injury.

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