Abdominal aortic aneurysm and lumbar plexus palsy

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An 82-year-old man was found to have a 6 cm infra-renal abdominal aortic aneurysm (AAA) (Panel A, white arrow). Elective AAA surgery was postponed due to incidental finding of a hepatocellular carcinoma (Panel A inset, red arrow), for which he underwent successive catheter-directed embolization to good result (Panel B inset, red arrow). He lived on his own and maintained an independent lifestyle. He was therefore re-assessed for the suitability of surgical repair for AAA. Repeat imaging revealed the incidental finding of a ruptured AAA, with a large haematoma encasing the left psoas muscle along the third to fifth lumbar vertebrae (Panels B and C, yellow arrow). His abdominal examination was entirely normal.

Upon further questioning, he recalled an episode of violent coughing ~12 weeks prior. Within hours, he experienced sudden onset of intense hyperesthesia in his left scrotum. Over the following weeks, he noticed persistent numbness over the left groin and anterior upper thigh. He was referred by his GP to the neurology clinic for the assessment of this peculiar neuropathy in the interim.

In the presence of an AAA, sudden onset lumbar plexus palsy should alert the clinicians of a differential diagnosis of AAA rupture. His symptoms were due to haematoma compressing branches of the lumbar plexus, including the genital-femoral nerve which emerges onto the anteromedial surface of psoas muscle and supply the scrotal skin (genital branch) and skin of femoral triangle (femoral branch), the lateral femoral cutaneous nerve, and ilio-inguinal nerve (both emerges lateral to the psoas muscle and supply the skin of the corresponding thigh).

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