

Data from an electrophysiological analysis of the posterior cutaneous femoral nerve

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Abstract

The skin of the perineum as well as the posterior side of the thigh and leg are both innervated by the posterior cutaneous femoral nerve. We examined 116 limbs from 48 healthy participants using the Dumitru et al. [1] approach to evaluate this nerve. The median results for the posterior cutaneous femoral nerve were 2.0 msec (0.5) for onset latency, 7.0 V (2.1) for amplitude, and 52 m/s (4) for nerve conduction velocity. It is easy and repeatable to evaluate the posterior femoral cutaneous nerve. This standardisation produced results that were comparable to those in international literature.

Keywords

Femoral nerve; Posterior cutaneous nerve

Introduction

Under the piriformis muscle, the posterior cutaneous nerve of the thigh exits the pelvis through the sciatic foramen and travels along the medial side of the sciatic nerve to the buttock and thigh. It is made up of nerve roots from the S1, S2, and S3 anterior and posterior divisions as well as the S2 and S3 anterior divisions. The superior medial surface of the thighs, the skin of the scrotum, and the labia majora all receive sensory innervation from the perineal branches. The skin covering the lower and lateral section of that muscle is supplied by the gluteal branches, which curve upward around the lower border of the gluteus maximus. The majority of the back of the thigh and leg is made up of many filaments that are dispersed along both sides of the nerve to the skin covering the popliteal fossa, the upper portion of

the back of the leg, and the rear and medial side of the thigh. The quadratus femoris and inferior gemini muscles (L4,L5,S1) and the internal obturator and superior Gemini muscles (L5,S1,S2) are both reached by collateral branches from the anterior divisions[1-4].Only six isolated nerve lesions have been documented, and one of those cases included a 25-year-old woman who had a lesion after receiving an intramuscular injection [5].This study's objectives were to access the posterior cutaneous femoral nerve, evaluate our findings in light of current worldwide literature, and make recommendations for standardising the nerve.

Conclusion

The evaluation of the posterior femoral cutaneous nerve is straightforward, repeatable, and can offer further details on the proximal sensory innervation of the lower limbs, including the perineum. The outcomes of this standardisation matched those mentioned in international literature.

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