

Accessory Superficial Peroneal Nerve: A Case Report

Highlighting Clinical Significance and Surgical Implications



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INTRODUCTION

- The Common Peroneal Nerve gives the Superficial and Deep Peroneal nerves at the neck of the fibula which supply the Peroneus longus, Peroneus brevis and Extensor Digitorum Brevis and provides cutaneous innervation to most of the foot.

CASE REPORT

- An unusual dividing pattern of the Peroneal nerves on the left lower limb of a 57-year-old male cadaver was observed.
- An accessory twig of the superficial peroneal nerve, arising from the deep peroneal nerve at the upper shaft of the fibula was spotted.
- The cutaneous branch of the Superficial Peroneal Nerve supplied only the lateral aspect of the dorsum of the foot. The supply of the medial aspect of the foot was compensated by the Accessory Superficial Peroneal Nerve.
- The deep peroneal nerve was seen in its usual course, supplying the muscles of the region and the 1st interdigital cleft.

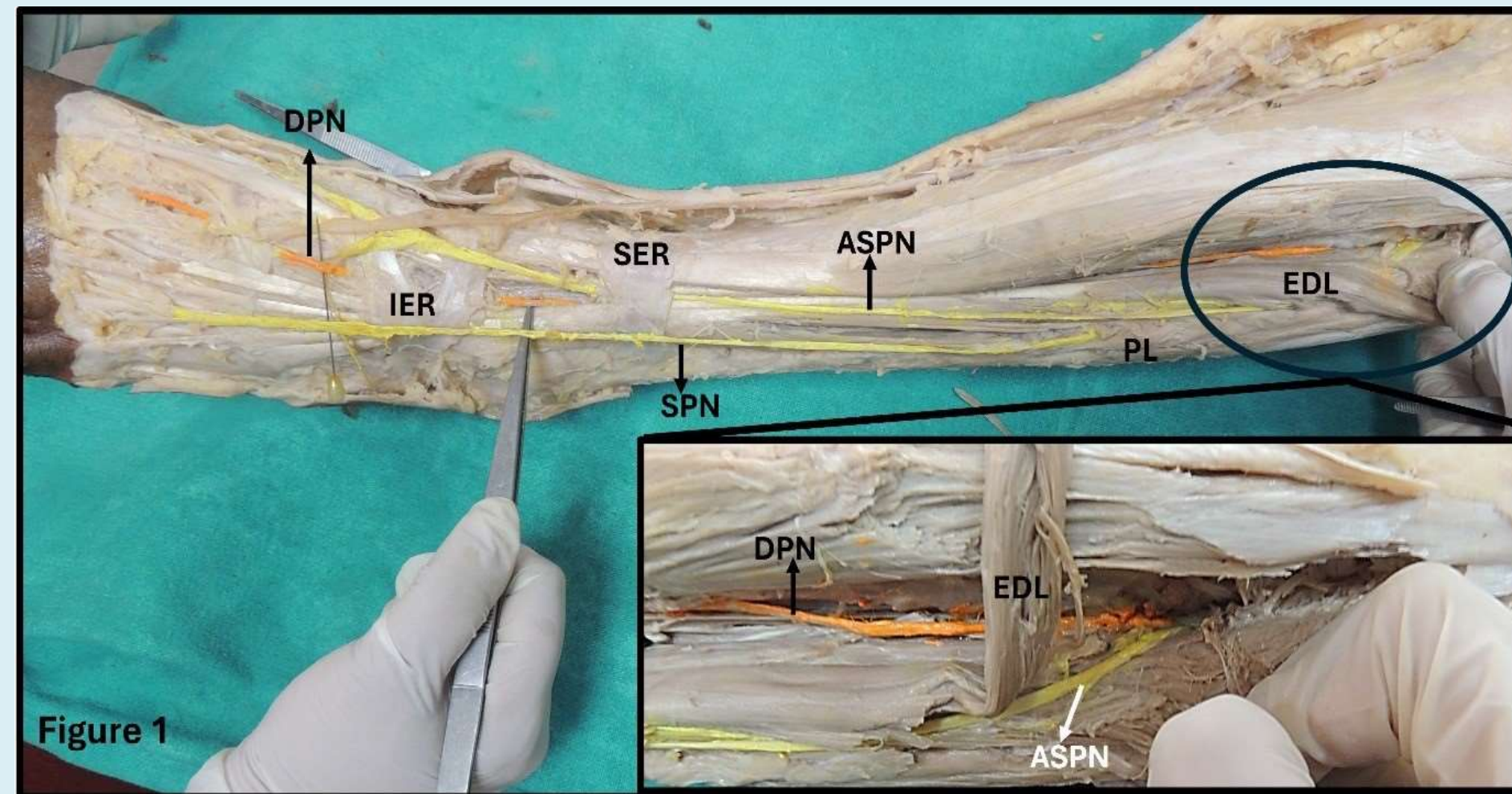


Figure 1: Showing an unusual Accessory superficial peroneal nerve (ASPEN) branching from the Deep peroneal nerve (DPN) and compensating for the area not supplied by the Superficial peroneal nerve (SPN).

Inside picture: The accessory superficial peroneal nerve (ASPEN) arising from the deep peroneal nerve (DPN) visible upon reflection of the Extensor digitorum longus (EDL) muscle. SER – Superior extensor retinaculum; IER – Inferior extensor retinaculum; PL- Peroneus longus.

REFERENCES

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DISCUSSION

- In a study by Nagabhooshana, et. al, variation in the motor supply of the nerve was observed as compared to our study where there is alteration in the cutaneous supply.
- In a study by Blair, et. al, absence of the medial cutaneous branch was compensated by the Saphenous Nerve and in case of absence lateral cutaneous branch, Sural nerve provided compensation.

CONCLUSION

- Variations, as seen in this case report, have proved to be important in fasciotomy, traumatic and atraumatic pain syndromes of the leg and regional anesthesia of the ankle.
- In treatment of peripheral nerve injury, the Superficial Peroneal Nerve has proved to be an apt. graft.
- Iatrogenic injury to the peroneal nerves could be recovered following neurolysis or nerve transfer.