A NOVEL APPROACH TO SCIATIC NERVE BLOCKADE (A CAN'T GA, CAN'T SPINAL SCENARIO)

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Introduction/Background and Aims

An elderly polytrauma patient in extremis, requiring emergency lower limb surgery, unsuitable for general anaesthesia or central neuraxial blockade due to extensive lung injuries and vertebral fractures. The patient's positioning was dictated by his injuries and he remained supine throughout.

Methods

A combined femoral sciatic nerve block was completed. An anterior approach to the sciatic nerve block was employed. Ultrasound guidance using longitudinal views over conventional transverse views were used, as visual optimisation of the sciatic nerve from leg rotation was not possible due to the patient's inferior pubic rami fracture.

Image 1: sonogram of sciatic nerve in the transverse plane

Image 2: sonogram of sciatic nerve in the longitudinal plane

Image 3: infiltration perineurally of the SN in the longitudinal plane

Results

Visualisation of the SN was achieved through longitudinal ultrasound views. Longitudinal views allowed the SN to be viewed as a distinctly continuous hyperechoic structure with a characteristic fascicular pattern, differentiating it from its surrounding muscle layers. Longitudinal views allowed an in-plane technique to be utilised. Accurate visualisation of the direct spread of local anaesthetic around the sciatic nerve was achieved, ensuring optimal blockade. The patient remained comfortable and haemodynamically stable throughout the surgery.

Image 4: sonogram of sciatic nerve in the longitudinal plane after local anaesthetic infiltration

Image 5: sonogram of sciatic nerve in the transverse plane after local anaesthetic infiltration

Conclusions

A combined femoral sciatic nerve block proved a safe and effective alternative for lower extremity anaesthesia. An anterior approach to the sciatic nerve block was performed, due to the necessity of remaining in a supine position. Unconventional longitudinal views facilitated the observation of the sciatic nerve and subsequent spread of local anaesthetic, while allowing an in-plane technique, thus ensuring optimal blockade.

References

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