Mobilisation after a bilateral Transmuscular Quadratus Lumborum block – A local quality survey

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Background

An ultrasound-guided bilateral Transmuscular Quadratus Lumborum (TQL) block provides analgesia of both the somatic and visceral nerves in the abdomen due to the spread of injectate to the thoracic paravertebral space¹. A cadaveric study has previously showed no spread of injectate to the lumbar plexus¹. One case of unilateral lower limb weakness has been described after a bilateral TQL block (anterior to posterior approach, supine positioning)². Another research group has, without mentioning their block technique, described that 90 % of their patients experience lower limb weakness when performing TQL blocks³. We wanted to survey the incidence of lower limb weakness when performing a pre-operative bilateral TQL block at our department.

Methods

During two weeks of Spring 2019 it was registered whether the patients having a pre-operative bilateral ultrasound-guided TQL blocks showed sign of lower limb motor weakness afterwards (ability to walk to the operating theatre). The Transmuscular Quadratus Lumborum (TQL) block is performed with the patient in a lateral decubitus position. A curved array transducer is placed in the posterior axillary line immediately above the iliac crest. Using an in-line posterior approach the local anaesthetic is injected in the interfascial plane between the quadratus lumborum and the psoas major muscles.

Results

Eight patients had a pre-operative bilateral TQL-block with 2 x 30 mL 0.375% ropivacaine in our block room approximately 30 minutes prior to entering the operating theatre. All eight patients (100%) were, after having a bilateral TQL block, able to walk independently from the holding area and into the operating theatre.

Conclusion

From our mini survey no patients showed sign of lower limb weakness after a pre-operative bilateral TQL-block. The TQL block is an advanced block and the previously described lower limb weakness might be due to an accidental lumbar plexus block.

References

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