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Blockade of trigeminal nerve for geriatric patients

Case study

This pilot clinical case series describes a technique of ultrasound guided blockade of second and third branches of the trigeminal nerve for facial surgery in geriatric patients.

Methods:

Five geriatric patients (4 females and 1 male), average age of 79.5 years was indicated for tumor surgery located in the face at the Department of Surgery, Masaryk Hospital in Usti nad Labem. Written informed consent was obtained from all patients. Anesthesia was performed using ultrasound guided-blockade of n. temporalis and second branches of the trigeminal nerve in the fossa pterygopalatine (nerve maxillary) a technique was developed at clinic of Anesthesiology, Perioperative and Intensive Care Medicine Department of the same hospital. The ultrasound guidance allowed for the visualization of the fossa pterygopalatine. Landmarks is lateral lamina of the process pterygoid sphenoidale bone. Visualization of the maxillary artery and other vascular structures before and during the spread of local anesthetic reduced the likelihood of intravascular anesthetic administration. The blockade itself was induced by 5ml (nerve temporalis) and 7 ml 0.5% Marcaine to second branch of nerve trigeminus.

Results:

The blockade was successful in all five patients, allowing for spontaneous breathing and patients cooperation under mild sedation. Cardiovascular stability was excellent despite the high anesthetic risk.

Conclusion:

The blockade of nerve maxillaries in the fossa pterygopalatine and nerve temporalis branch of the third trigeminal nerve proved to be a technique suitable for facial surgery in high risk geriatric patients.