Suprascapular nerve block
- a new proximal approach -

Christian Rothe¹, Christian Steen-Hansen¹, Jørgen Lund², Morten T. Jenstrup², Kai H. W. Lange¹

¹ Department of Anaesthesiology, Nordsjællands Hospital-Hillerød and Copenhagen University, ² Department of Anaesthesia, Aleris-Hamlet Hospital - Copenhagen

Background
The standard approach for the suprascapular nerve block (SSNB) is deep in the supraspinous fossa. However, with this approach, the SSN is very difficult to visualize by ultrasound (US). The aim of this study was to describe a new method to visualize and selectively block the SSN in a more superficial and proximal location.

Methods
Twelve healthy volunteers were included. Using US, we located the superior trunk of the brachial plexus in the interscalene groove and followed the trunk distally to identify the departure of the SSN. The SSN was followed under US visualization into the subclavian triangle under the inferior belly of the omohyoid muscle. We performed in plane US-guided specific SSNB by injecting 1 ml of local anaesthetic (lidocaine 20 mg ml⁻¹) close to the nerve. Needle placement was aided by simultaneous nerve stimulation. We assessed sensory (cold stimulation) and motor (active resistive force) block of the suprascapular, axillary, radial, median and ulnar nerves before, and 15 and 30 min after performing the block.

Results
The SSN could be visualized by US in ten out of twelve volunteers and SSNB was attempted in these ten volunteers. Eight blocks were successful and two were complete failures. The successful blocks only affected the SSN.

Conclusions
We describe a new US-guided low-volume local anesthetic technique to specifically block the SSN. The potential clinical role of this new approach remains to be determined.