Treatment of primary palmar hyperhidrosis with multiple botox injections with and without prior ultrasound-guided nerve blocks – a local improvement project

Bernhoff C¹, Jepsen M. E.², Hæstrup, D. S.¹, Tanggaard K¹, Børglum J¹

¹Department of Anesthesia & Intensive Care Medicine, Zealand University Hospital, University of Copenhagen, Denmark

² CAMES – Copenhagen Academy of Medical Education and Simulation, Rigshospitalet, Copenhagen, Denmark

Background and aims

Primary palmar hyperhidrosis (PPH) is a medical condition characterized by excessive sweat secretion of the palms. PPH impacts the patients work and social life. At Zealand University Hospital, patients are offered multiple injections of botox (BTX) to reduce the excessive sweat secretion.

The BTX injections are associated with intense pain and the treatment needs repeating every six months. Previously, the pain treatment for this procedure was by local infiltration. To improve the current pain treatment, patients are now offered peripheral nerve blocks before BTX injections.

Method

Prior to the BTX injections, the anesthetist performed an ultrasound-guided (USG) median and ulnar nerve block with 4-6 ml lidocaine 0.1% at each site of injection. After 20 minutes, the dermatologist injected the BTX. After the treatment, the patients were asked to fill out an anonymous questionnaire. The questionnaire had two parts: experience with BTX injections with and without prior nerve blocks.

Results

Twenty one patients filled out the questionnaire. 76% of patients had previously received BTX injections without prior nerve blocks and associated this with a pain score of 8.0 [4-9] (Median [Range], NRS 0-10). All of the patients (21) received BTX treatment that day with a prior median and ulnar nerve block and reported a pain score of 2.0 [0-8] (Median [Range], NRS 0-10). 95% of patients receiving BTX injections would prefer USG nerve blocks prior to the procedure.

Conclusion

Ultrasound-guided nerve blocks of the ulnar and median nerves seem to reduce pain associated with BTX injections. USG nerve blocks are now routinely offered before BTX at our institution.