

Braekken 2021 Abstract

Electromyography In Pelvic Floor Dysfunction And OAB

Objective

To test that **surface electromyography (sEMG)** has good test-retest intratester reliability, good criterion validity and is responsive to changes compared to manometry in patients with pelvic floor dysfunction, stress incontinence and overactive bladder (OAB). Vaginal **sEMG** is commonly used to assess pelvic floor muscle (PFM) function and dysfunction

Results

The study found that after four to 42 weeks of supervised PFM strength training 29 participants were retested with both devices with very good test-retest intratester reliability found for all three sEMG measurements. The correlation between sEMG and manometry was moderate for vaginal resting tone.

The conclusion of the research was that sEMG is reliable and correlates well with manometry. However, sEMG is not as responsive as manometry for changes in PFM MVC and endurance. For measurement of PFM resting tone, sEMG appeared more responsive than manometry.

Participants and Clinicians

Participants consisted of 66 women with a median age of 41, ranging from 24-83 years of

The study was carried out by *Ingeborg Hoff Brækken*, Department of Research and Innovation, Akershus University Hospital, The Pelvic Floor Centre, Lørenskog, Norway and Health Department Northern Follo Municipality, Kolbotn Physiotherapy Institute, Kolbotn, Norway; *Britt Stuge*, Division of Orthopaedic Surgery, Oslo University Hospital, Oslo, Norway; *Anne Therese Tveter*, Department of Rheumatology, Diakonhjemmet Hospital, National Advisory Unit on Rehabilitation in Rheumatology, Oslo and Institute of Physiotherapy, Faculty of Health Sciences, Oslo Metropolitan University, Oslo; and *Kari Bø*, Akershus University Hospital, Department of Obstetrics and Gynaecology, and Department of Sports Medicine, Norwegian School of Sport Sciences, Oslo.

Methods

PFM resting tone, maximum voluntary contraction (MVC) and endurance were measured in the participants. One assessment by manometry was followed by two testing sessions with **sEMG** at baseline using the **NeuroTrac MyoPlus Pro** (Verity Medical).

An abstract (<https://doi.org/10.1007/s00192-021-04881-0>) of this study was presented at The International Urogynecological Association annual meeting in September 2019.