HIFEM® PROCEDURE AND ELECTROSTIMULATION FOR TREATMENT OF PELVIC FLOOR MUSCLE WEAKNESS AND URINARY INCONTINENCE

A COMPARATIVE STUDY ON THE EFFECTS OF HIFEM TECHNOLOGY AND ELECTROSTIMULATION FOR THE TREATMENT OF PELVIC FLOOR MUSCLES AND URINARY INCONTINENCE IN PAROUS WOMEN: ANALYSIS OF POSTTREATMENT DATA

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HIGHLIGHTS

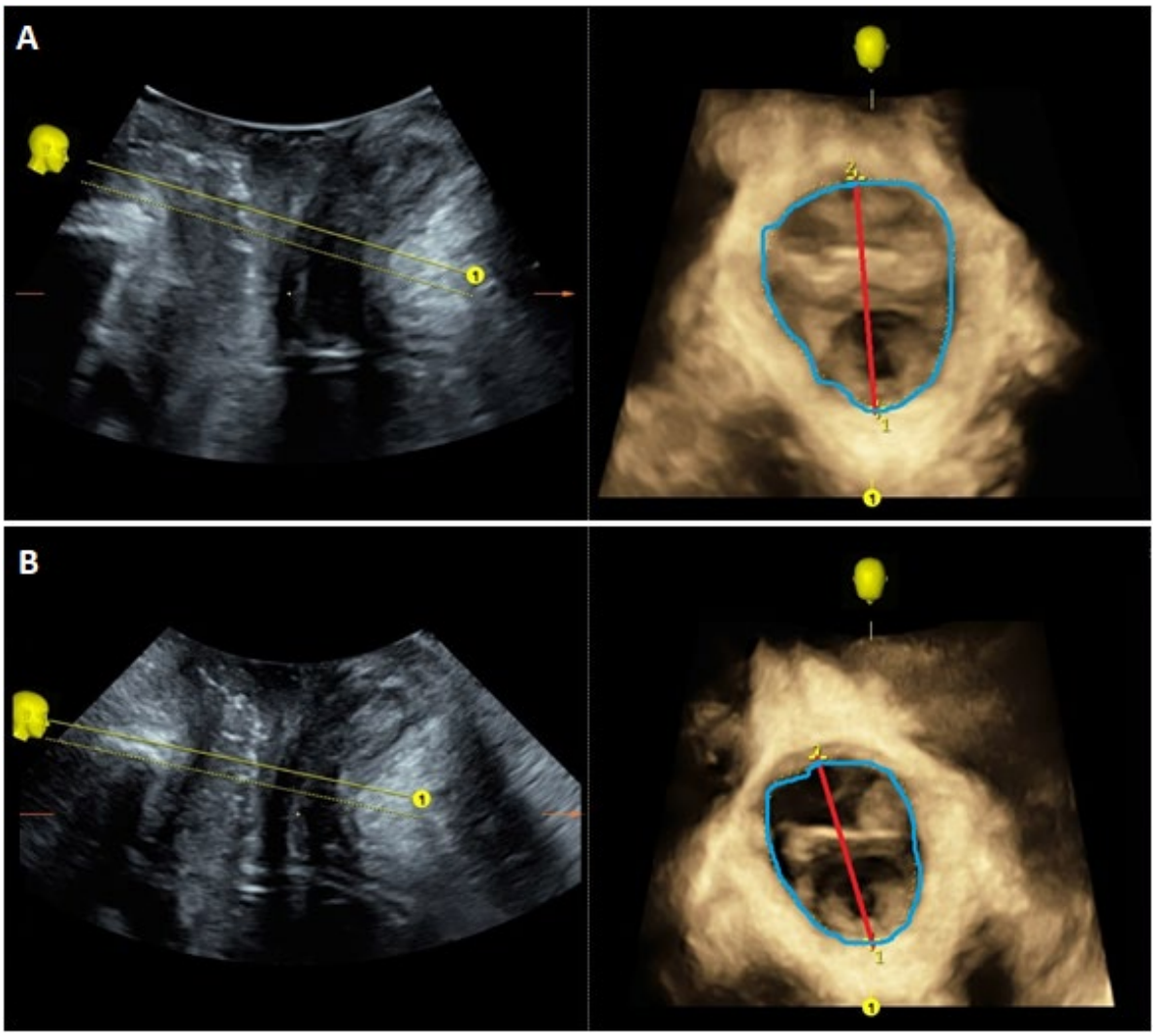
- 3D ultrasound examination revealed **significant improvement of pelvic floor integrity** after HIFEM treatment.
- Subjects treated with HIFEM achieved **a three times higher level of improvement** in PFDI-20 standardized questionnaire.
- Subjects reported two **times better results in a subjective evaluation** after HIFEM.
- All the assessment methods showed that **HIFEM procedure is more effective than electrostimulation** for treatment of weakened pelvic floor muscles.

DESIGN AND METHODOLOGY

- **Two groups** showing weakened pelvic floor muscles and urinary incontinence were treated with HIFEM (N=50, 31.1 years) and electrostimulation (N=25, 32.0 years).
- **One group** of healthy patients (N=20, 27.2 years) served as **control**.
- Treated subjects completed 10 therapies scheduled 2-3 times per week (HIFEM) or every other day (electrostimulation).
- **3D ultrasound** was used to quantify the **biometric indices of pelvic floor integrity** e.g. anteroposterior diameter (LH-AD) and laterolateral diameter (LH-LD) of levator hiatus, hiatal area (HA) and levator-urethra gap (LUG) for pelvic prolapse detection.
- **Pelvic Floor Disability Index 20** (PFDI-20) standardized questionnaire and **subjective evaluation** of subject's intimate health was assessed.
- Data was collected at the baseline and after completion of treatments.

RESULTS

- **HIFEM** procedure resulted in **significant (P<0.05) improvement** in 3D ultrasound measurements, approaching the values of control group after the treatment. Results of **electrostimulation** group showed similar yet **insignificant trend**.
- The HIFEM group showed **improvement in PFDI-20** questionnaire by **52% (31.45 points)**, whereas electrostimulation resulted in a change of only 18% (11.78 points).
- The post-treatment **difference** in PFDI-20 scores **between HIFEM and electrostimulation** was highly significant.
- Subjects treated with HIFEM reported a decreasing number of urine leakage and improvement in vaginal laxity during intimacy.
- In general, **subjective self-evaluation** showed a **two times higher level of improvement** after HIFEM when compared to electrostimulation.
- **HIFEM** procedure **improved integrity of pelvic floor** and **incontinence** while **outperforming** electrostimulation.



3D Ultrasound measurements of the pelvic floor at the baseline (A) and post-treatments (B) in patient from HIFEM group. Anteroposterior diameter of levator hiatus (red line) and hiatial area (blue line) have been considerably improved after HIFEM.