QUANTIFICATION OF HIFEM® EFFECTS ON BUTTOCKS

MRI EVALUATION OF CHANGES IN GLUTEAL MUSCLES FOLLOWING TREATMENTS WITH THE HIGH-INTENSITY FOCUSED ELECTROMAGNETIC (HIFEM) TECHNOLOGY.

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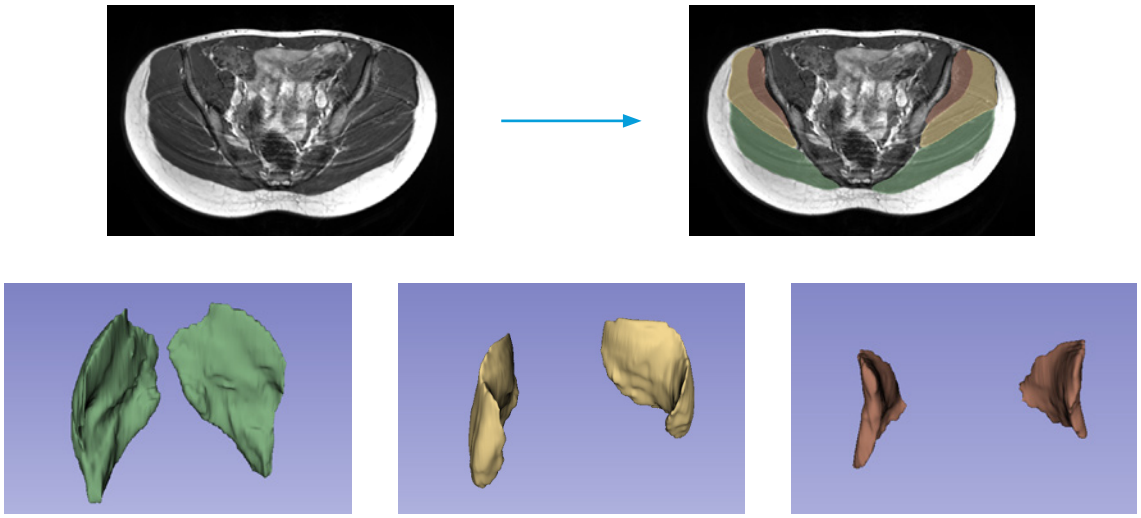
HIGHLIGHTS

- Patient group of **25 subjects** who received four **30-minute HIFEM treatments** underwent MRI screening at the baseline and 1-month follow-up.
- MRI analysis of **gluteal muscles** (musculus gluteus maximus, medius and minimus) revealed an average **volumetric increase in muscle mass** after four HIFEM treatments.
- **The most substantial increment** was observed in the **gluteus maximus** (10.59+3.37%*), the muscle enhancement showed to be **uniform across all three evaluated muscles**.
- **The most profound** hypertrophic effect was observed in **the upper buttock region**, where it translated into a **visible buttock lifting**.

Standardized photography of a patient at baseline (left) and 1-month follow-up (right), left view.
The dotted line indicates visible enhancement of muscle tissue and buttock lifting.

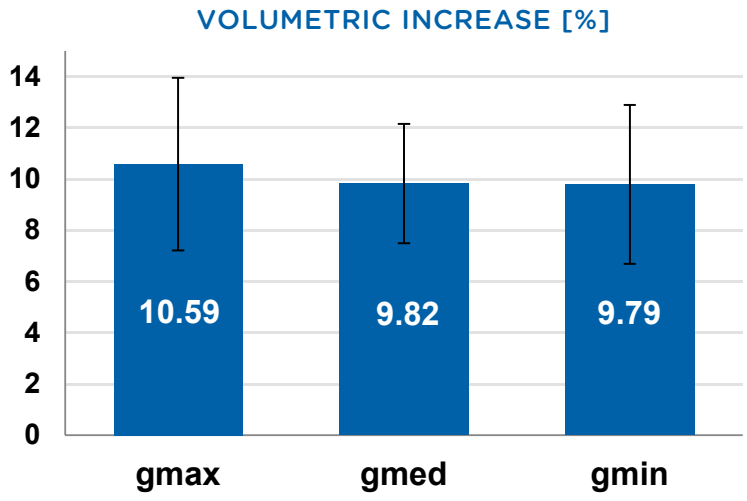
STUDY DESIGN

- **MRI scans** of the **pelvic region** along with standardized photographs were collected.
- MRI scans were **manually segmented** to reconstruct **3D volumes** of m. gluteus maximus (gmax), m. gluteus medius (gmed) and m. gluteus minimus (gmin). Volumetric changes were calculated and statistically analyzed using a paired t-test.



Example of gluteal muscle segmentation and 3D reconstruction. The gluteus maximus (green), medius (yellow) and minimus (red) were identified and manually segmented slice by slice.

RESULTS



Average muscle enhancement of individual muscles increase at the 1-month follow-up. All of the results were statistically significant.*

*Based on the evaluation of 18 out of 25 patients.