

Novel technology for Facial Muscle Stimulation Combined with Synchronized Radiofrequency Induces structural changes in Muscles tissue: Porcine Histology Study

Brian Kinney, MD¹; Jan Bernardy, DVM²; Rea Jarosova MSc²

1. Division of Plastic Surgery, The University of Southern California Keck School of Medicine, Beverly Hills, CA, USA

2. Veterinary Research Institute, Brno, Czech Republic

Published in Aesthetic Surgery, March 2023, DOI:10.1093/asj/sjad053

+19%

Increase in Muscle Density

+21%

Increased nr. of Myonuclei

+20%

Increased nr. of Muscle Fibers

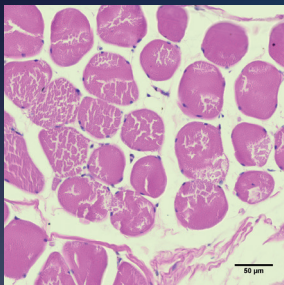
Methodology

- 8 Large white pigs (60-80 kg) divided into 2 groups
- Active group (6 sows): Four 20-minute treatments of forehead
- Control group (2 sows): No treatment
- Punch biopsies of muscle tissue collected at baseline, 1 and 2 months after last treatment

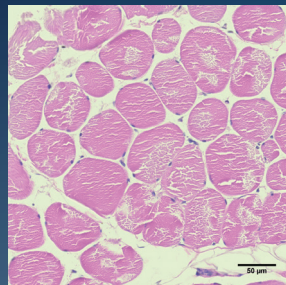
Results

- All results in active group were significant
- Control group showed insignificant changes
- Muscle temperature during treatment reached up to 39.5°C

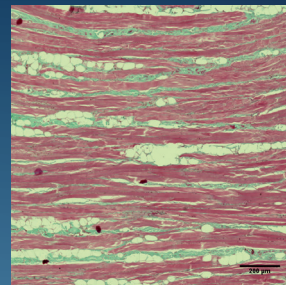
Example of muscle tissue samples



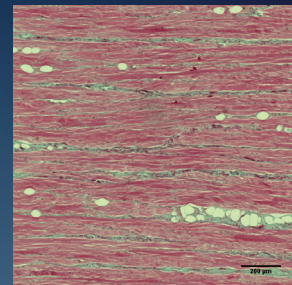
Baseline



2-month FU



Baseline



2-month FU