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*Evaluation Study*

## **Ultrasonographic Picture Of The Skin And Subcutaneous Tissue In The Treatment Of Cellulite Using The Compressive Microvibration®**

Z. Z. Kardashova<sup>1</sup>, E. V. Selezneva<sup>2</sup>, N. A. Vasilenko<sup>3</sup>, I. A. Vasilenko<sup>4</sup>, R. Saggini<sup>5</sup>, P. A. Bacci<sup>6</sup>

<sup>1</sup>Senior researcher in the Moscow Regional Scientific Research Clinical Institute, M. F. Vladimirsky, Moscow, Russia; <sup>2</sup>Researcher in Moscow Regional Scientific Research Clinical Institute, M. F. Vladimirsky, Moscow, Russia; <sup>3</sup>Researcher in the Moscow Regional Scientific Research Clinical Institute, M. F. Vladimirsky, Moscow, Russia; <sup>4</sup>Senior Researcher in the Moscow Regional Scientific Research Clinical Institute, M. F. Vladimirsky, Moscow, Russia; <sup>5</sup>Full Professor of Physical and Rehabilitation Medicine at eCampus University, Milan, Italy; <sup>6</sup>Past Professor on Phlebology and Aesthetic surgery at Siena University, Director of Phlebology Medical Center, Arezzo, Italy

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*Corresponding author:*

Dr. P. A. Bacci

Past Professor on Phlebology and Aesthetic

surgery at the University of Siena,

Director of Phlebology Medical Center,

Via Monte Falco 31,

52100 Arezzo, Italy

Tel: +39.05757355998

e-mail: [info@baccipa.it](mailto:info@baccipa.it)

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## ABSTRACT

In recent years, the demand for non-invasive methodologies in aesthetic medicine for treating localized adiposity, cellulite, and sagging skin has increased significantly, particularly the demand for massage techniques with mechanical vibrations. The aim of the present study is to evaluate the effectiveness of Compressive Microvibration® in reducing the expression of cellulite and improving skin conditions in women of different ages under ultrasound control during 60 days of observation. A prospective, single-center, nonrandomized study enrolled 27 women with mild to moderate gynoid lipodystrophy, aged 40 to 69 years, who have been subject to twelve sessions of Compressive Microvibration® (Endospheres®). A specialized high-resolution digital ultrasound system, the DUB SkinScanner (tpm GmbH, Germany), has been used to visualize the skin. Also, the sample anthropometric parameters have been measured, the body mass index has been calculated, and photographs have been taken. In the patients included in the study, in all age groups, after complete treatment of Endospheres®, a decrease in BM has been noted, with a reduction of the bitrochanteric and hip circumference. An improvement in the morphological topography of the skin in terms of regularization of skin irregularities, leveling of reliefs, reduction of depressions, and increase in skin elasticity and density has also been recorded. After a cycle of therapy on the anterior surface of the abdomen and the thigh anterior and posterior surfaces, the scannograms revealed a decrease in the thickness of the epidermis at various levels, the resolution of the phenomenon of hyperkeratosis, a compaction of the dermis, and an increase in its homogeneity and echogenicity. The effect obtained was still present during a control examination two months after the conclusion of the treatment. The analysis of the dynamics of ultrasound criteria demonstrated the effectiveness of the Compressive Microvibration® in women with mild to moderate gynoid lipodystrophy to improve their skin conditions and maintain the obtained effect for 2 months of observation without unwanted side complications.