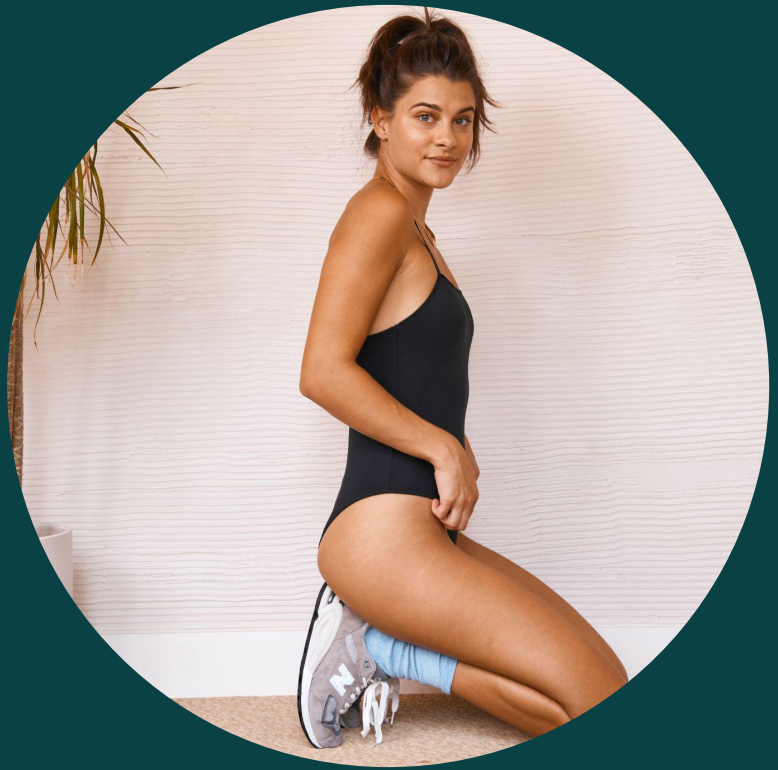

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Compressive Microvibration For the Treatment of Cellulite:

Retrospective Study

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Compressive microvibration in the cellulite treatment: retrospective study

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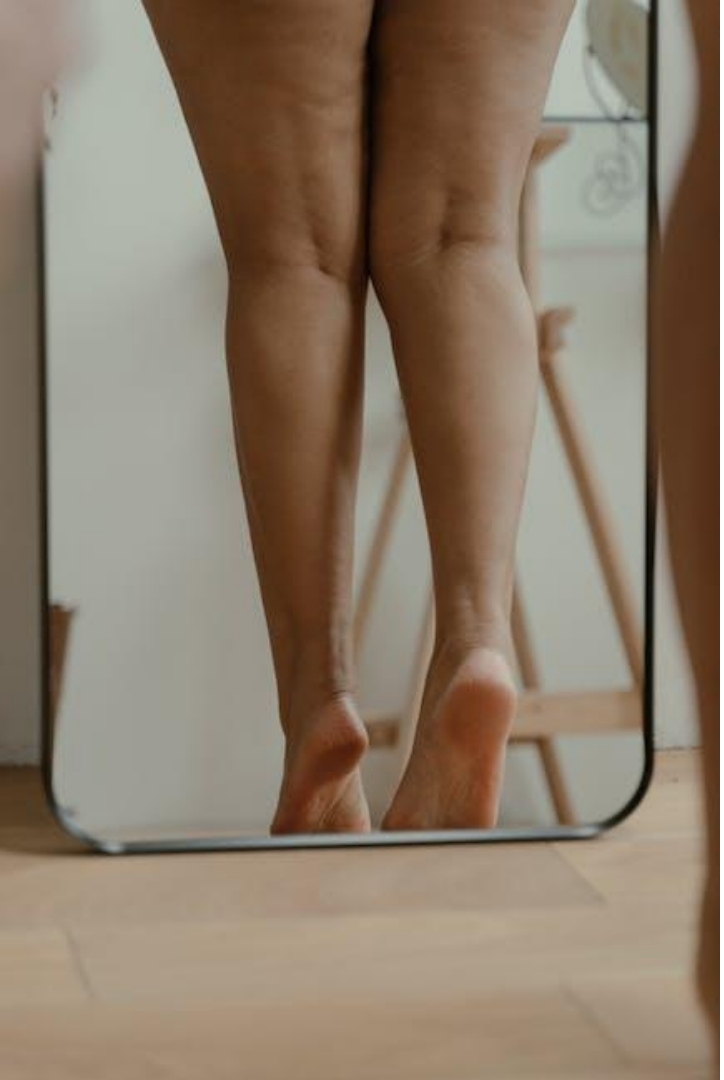
Introduction

In 2006, in the Department of Physical Therapy and Rehabilitation at the University of Chieti, a new medical strategy was presented that used a non-invasive methodology capable of causing microvibrations and microcompressions on the tissues. The new methodology was used for the treatment of neuromuscular pain and in sportsmen rehabilitation (1, 2).
In 2007, a preliminary study was performed to evaluate the possible use of that methodology to reduce the pain and the interstitial edema of the so-called female cellulite (3).
The present work is aimed at a critical and retrospective reflection on that preliminary study in the light of current knowledge and experiences, but it is necessary to review the evolutions of the physiology of the microcirculation and the interstitial matrix on which the new strategy is based.

Introduction

This presentation is summarizing a published scientific paper detailing how Compressive Microvibration can improve cellulite.

The study was written by Dr Bacci and published in the Journal of Applied Cosmetology.



What Is Cellulite?

Cellulite is one of the most common beauty issues in the female world. There are different opinions on the clinical identification of cellulite.

Cellulite: a local disorder in which shortening and fibrosis of subcutaneous collagen septae result in herniation of fat lobules through the dermohypodermal junction, leading to cosmetic alterations of skin topography and uneven, dimpled skin surfaces.

Cellulite is a dermis and hypodermis alteration that happens due to poor lymphatic circulation, which results in fibrous and hardening of connective tissue.

Cellulite can be associated with the following:

- Increase in subcutaneous adipose tissue (body fat)
- Pain
- Heavy legs
- Evolutive lipodystrophy (gaining body fat in some areas while losing it in others)

Cellulite Grades

Grade 0

No dimpling when pressure is applied.

Grade 1

Dimpling appears with the “pinch test” or muscular contraction.

Grade 2

Dimpling is visible when standing, but not when lying down.

Grade 3

Dimpling when both standing and lying down.

Endospheres Therapy

Endosphères Therapy uses Compressive Microvibration to perform 5 synergistic actions on the body's tissues:

1. Improving poor lymphatic drainage
2. Improving circulation
3. Decreasing aches and pains
4. Increasing muscle tone
5. Reducing cellulite at the root cause.

The Study

The study identified 20 female patients between the ages of 20 and 48 who volunteered to undergo treatment for painful cellulite, but did not present with lymphedema, swelling because of excessive fluid, or other pathologies.

- 10 patients presented with visible edema in the thigh region and had a higher than average BMI (25-28)
- 10 patients had a build-up of lymph and visible edema of their legs, but had a normal weight (BMI 20-24)

All patients mentioned that their legs swell or present with fluid retention in the evening or after prolonged standing. They all presented with grade 2 or 3 cellulite and minute nodules in the dermis due to evolving tissue swelling.

All 20 patients received 20 Endosphères Therapy sessions:

- 3 treatments during the first week
- 2 treatments per week for the remainder of the sessions.

Each treatment was performed for 40 minutes, and the technician treated the lower body region: front and back of thighs, calves, gluteus, feet, and abdomen.

The Results

The sessions were comfortable for the patients.

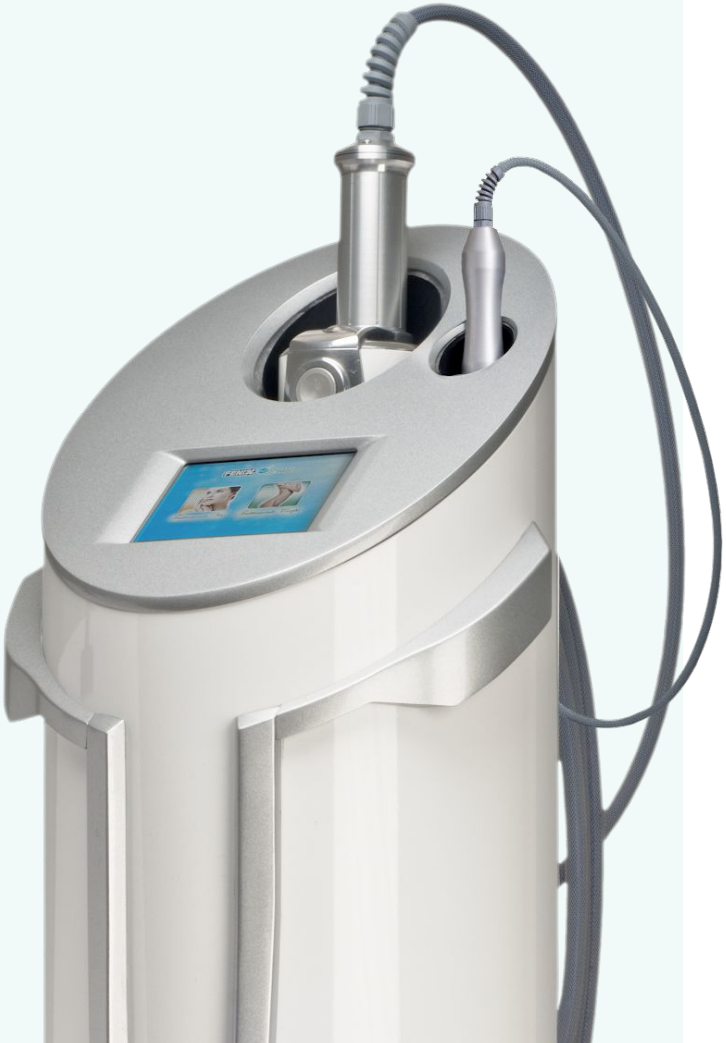
The patients rated the treatments on a scale from 1-10 (1 being the lowest, 10 being the highest)

18 patients (90%) were happy/satisfied with their treatments.

The remaining 2 patients (10%) who were not satisfied were also not consistent with receiving their treatments.

All ten clients (100%) who presented with visible edema in the thigh region and had a higher than average BMI had a **satisfaction rating of 90%** and an improvement in their cellulite with a satisfaction rating of **8.5 out of 10.**

The other ten patients who presented build-up of lymph and visible edema of their legs, had a **satisfaction rating of 80%** (two of the patients did not follow the treatment protocol correctly). The other eight patients reported a reduction in pain and heaviness in their legs. They rated the "orange peel" appearance improvement as an **8.4 out of 10.**



Conclusion

This study shows a general satisfaction of Endosphères Therapy for patients dealing with pain and improvement in cellulite - **an 8.5 rating of improved cellulite** and an 8.4 rating of progress in those presenting with lipolymphedema.

Pain reduction improvement is more evident in those with cellulite. This data is crucial and confirms that pain is not only caused by poor lymphatic function, but also by a lack of oxygen in the tissues. Lymphatic circulation is essential, but cells react to the vascularization and temperature increase rather than lymph reduction.