

ACUMESOTHERAPY WITH INJECTABLE COLLAGEN IN PATIENTS WITH LOCALIZED ADIPOSITY OF THE KNEES

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KEY WORDS

- ◆ Localized adiposity
- ◆ Mesotherapy
- ◆ Local knee acupuncture points
- ◆ Injectable collagen MD Matrix

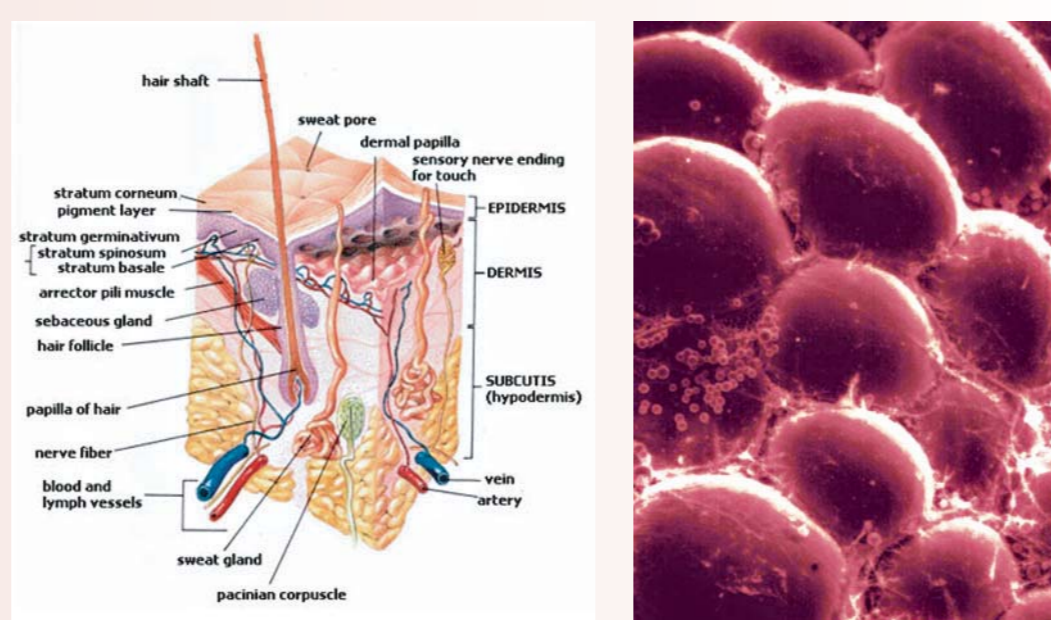
THE PROBLEM: The Localized Adiposity is not only an aesthetic problem, but a complex pathology – an external expression of numerous metabolic alterations in the tissues /connective matrix, adipose tissue/ and the organic /endocrine, circulatory, nervous, immune / systems.

- ◆ Is the accumulation of brown fat, rebellious to the physical activity in certain areas of the body that cause alterations in body contour.
- ◆ It is usually located in the abdomen ("lifeguard or rolls") to the sides of the legs ("riding pants"), shoulder and back of the arms, back ("hump"), inside of knees, etc.

FOUR FACILITATING ADIPOSITY FACTORS

- ◆ Alcoholic beverages: every gram of alcohol has 7 kilocalories.
- ◆ Smoking: Smokers have more fat in the abdomen than non-smokers.
- ◆ Sugar and fat: the combination tends to increase the volume of the abdominal area.
- ◆ Swimming in cold water increases the appetite and body fat accumulation as a mechanism for heat conservation. swimming is a very complete sport, but in very cold water can have "side effects".

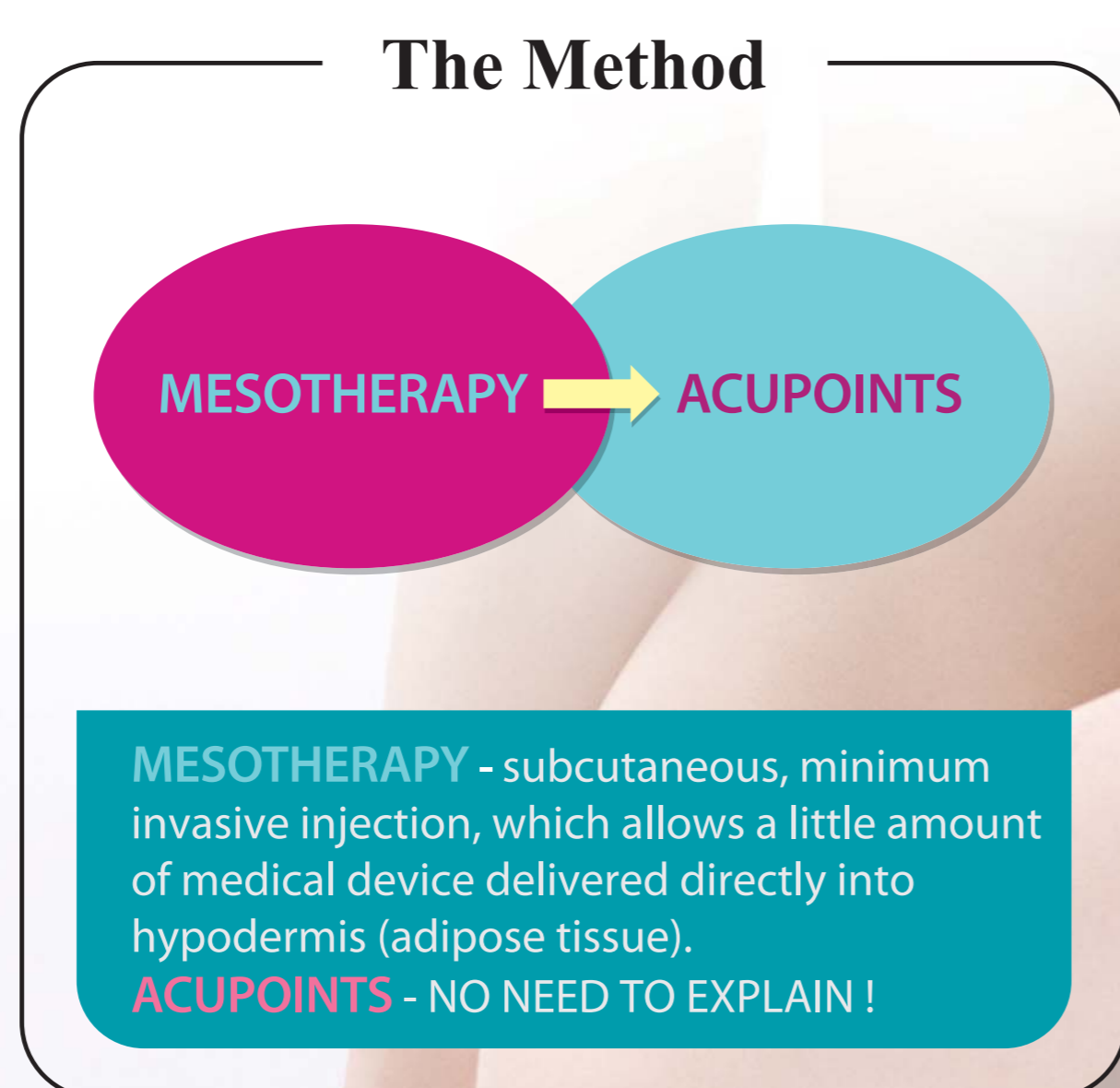
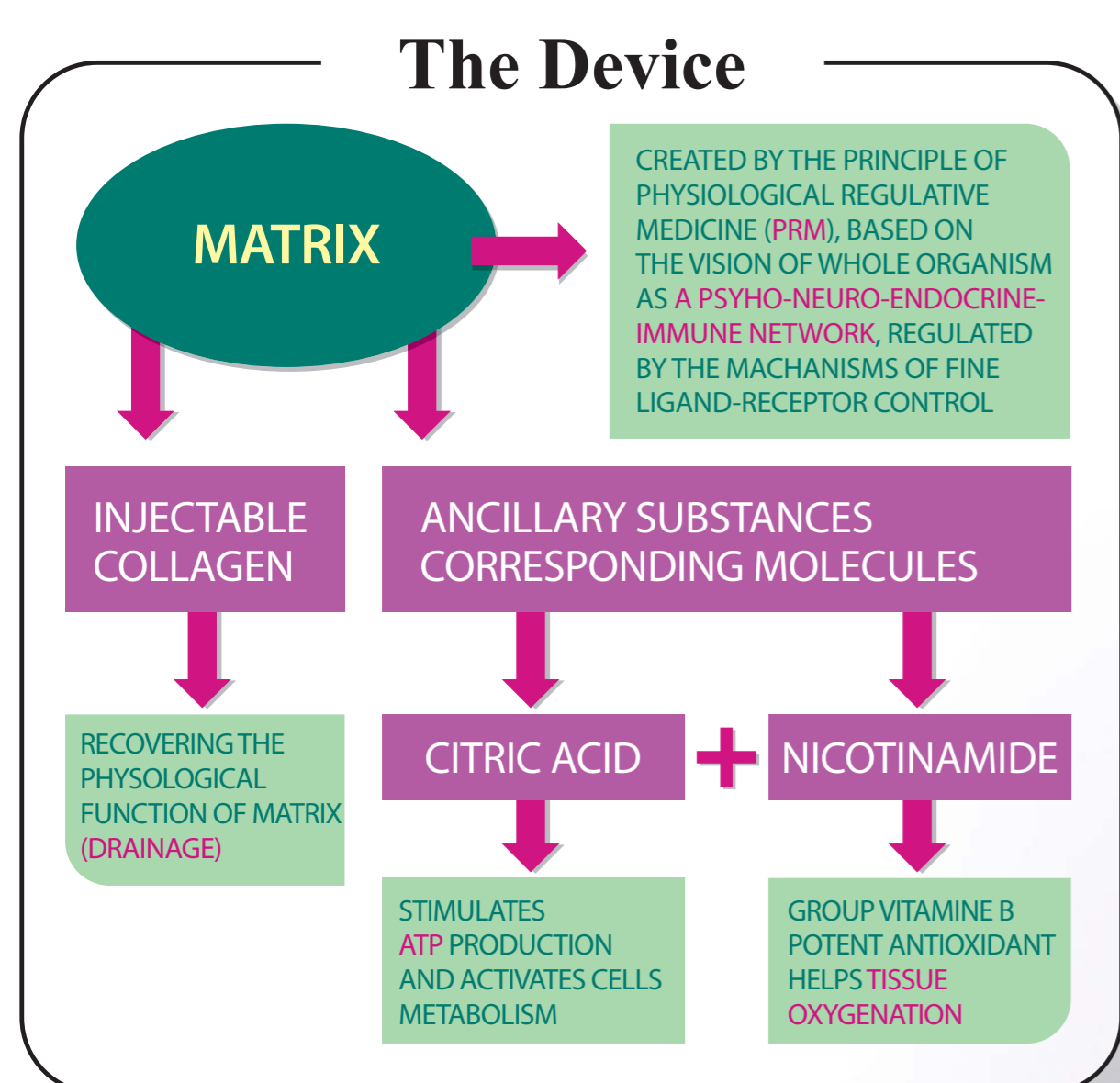
THE HYPODERMIS is made up of adipocytes grouped in lobules approximately 1cm in diameter; they are separated by walls of connective tissue through which blood and lymph vessels run. From these walls others emerge surrounding the lobes with abundant micro capillaries resulting in a very vulnerable terminal structure.



PATHOGENESIS OF LOCAL ADIPOSITY

There is not single opinion. The most popular pathogenetic models mentioned are:

- ◆ **Poor oxygenation** of tissues and accumulation of waste material and liquid in the connective tissue.
- ◆ **Disorders of lymph drainage** – adipocytes and the accumulated liquids push and spoil the connective tissue, break collagen fibers and block blood and lymphatic flow.
- ◆ **Hormonal influences** – fat distribution is regulated by 17 – **beta estradiol**. Regarding the hormonal changes there is a greater predisposition for development of fat cells in women. In adolescence there is increased activity of the estrogen-dependent **lipoproteolipase**, which is who contributes triglycerides to the fat cells. The **lypogenic hormones** are mainly **insulin and estrogen**.



PURPOSE: To examine and evaluate the effects of simultaneous application of two established techniques – **Acupuncture and Mesotherapy with Injectable Collagen** in the treatment of adipose accumulations, located on the knees.

DESIGN OF THE STUDY: Our investigation covered 22 women with excess fat deposits on the knees, aged 25-51 years, answering the inclusion criteria. They were under our observation from October 2011 to March 2012. During this period ten sessions of Acu-mesotherapy were carried out once a week. Measurement of the circumference on the level of popliteal crease was taken before starting the treatment, in the beginning of every next session and at the end of the course.

We were making subcutaneous injection at 5-10 mm depth, using needles 27G and injecting 0,3 ml Collagen /MD-Matrix/ in the following acu-points:

St-34, St-36, Sp-9, Sp-10, Liv-8, BI-40 and 0,2 ml in **St-35**

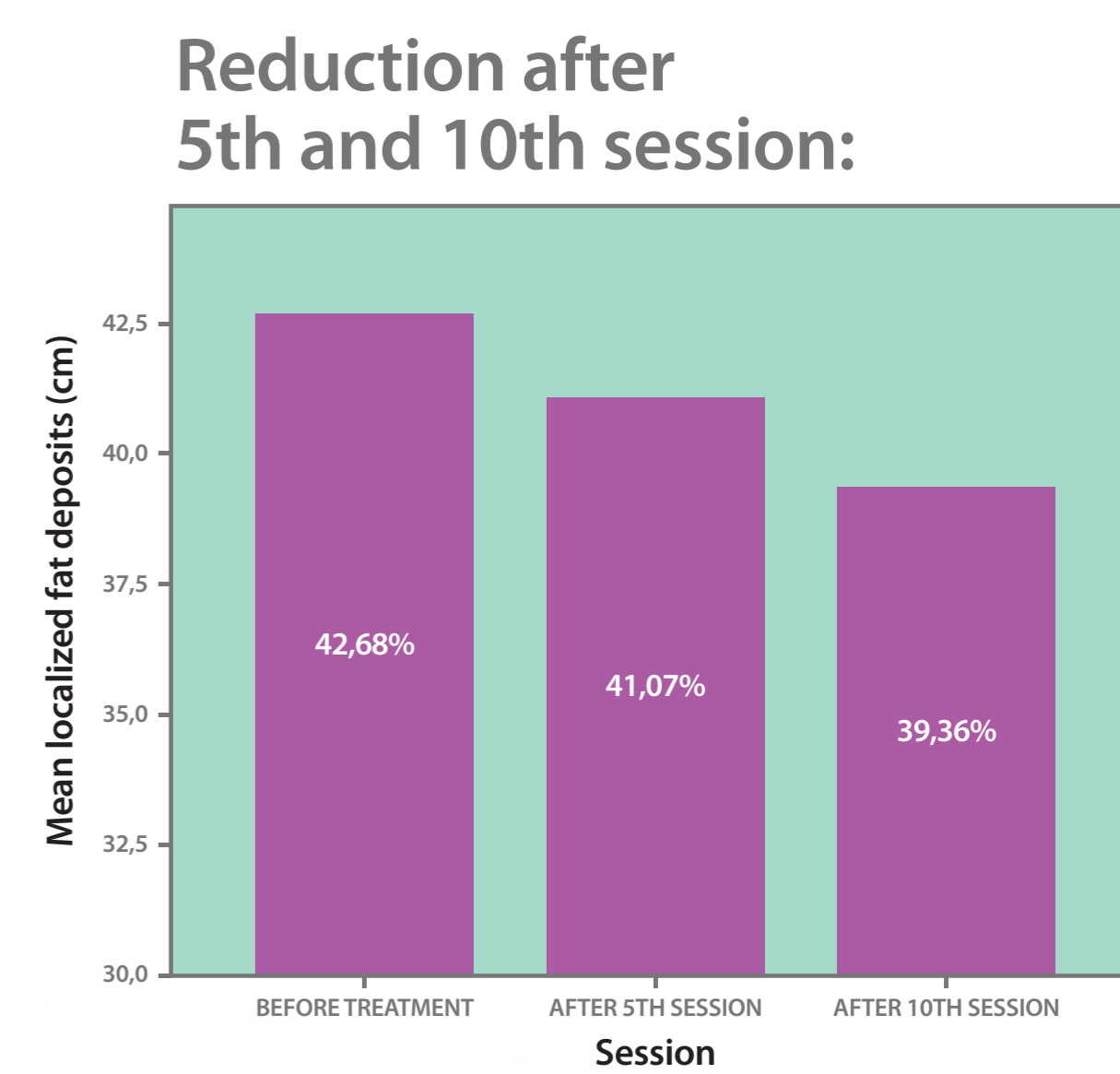
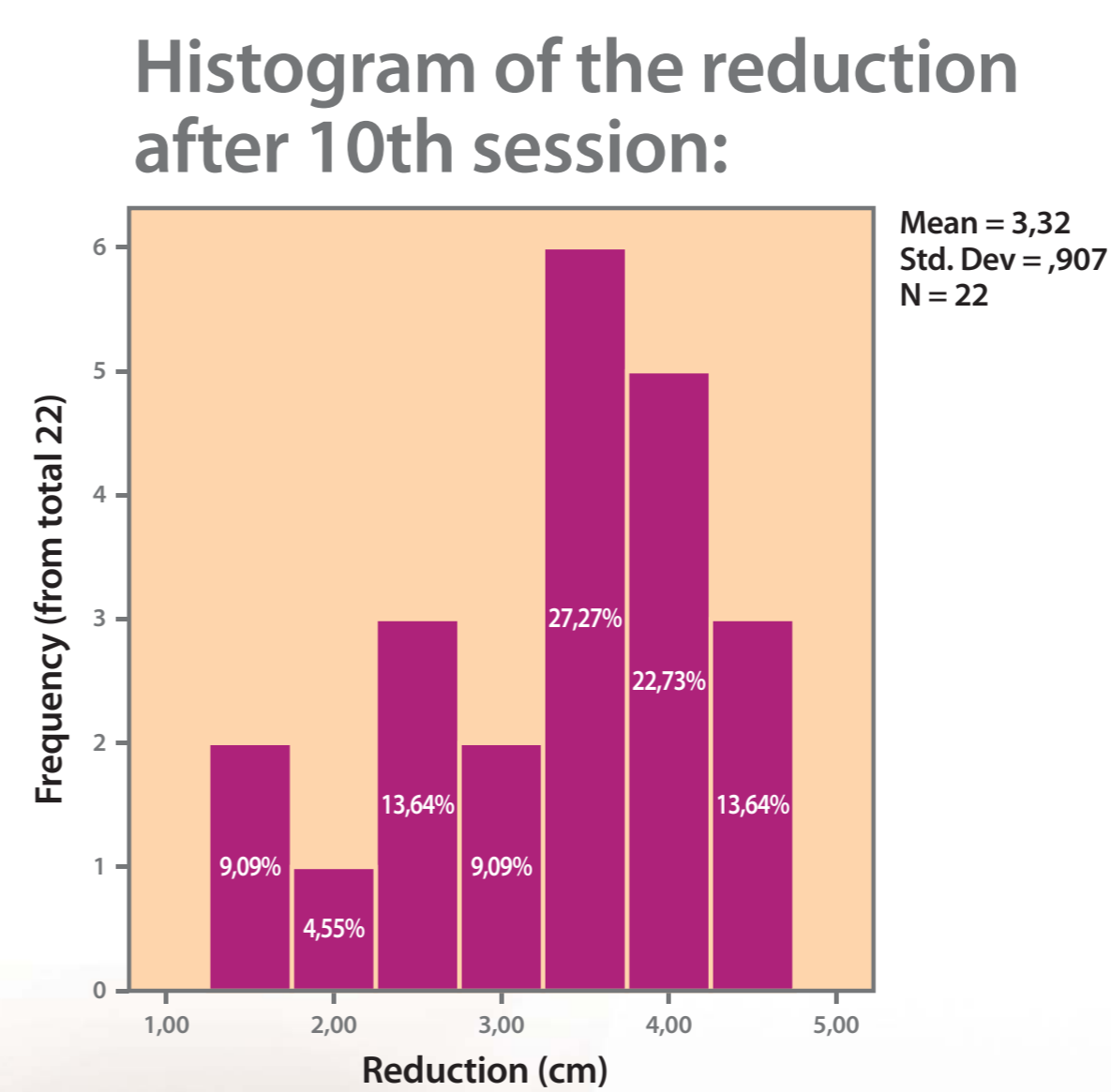


RESULTS: All patients obtained objective reduction of the localized knee fat deposits.

The decrease in knee circumference is statistically significant: $F(2, 42) = 208,708, p < 0.001$, analyzed with Repeated measures analysis.

Repeated measures analysis:

Before treatment: mean 42.68sm,
 After 5th session: mean 41.07sm,
 After 10th session: mean 39.36sm



THE RESULTS BEFORE/AFTER THE TREATMENT



CONCLUSIONS: This clinical evaluation provides positive data regarding the effectiveness of Acumesotherapy with Injectable Collagen in women with Localized Knee Adiposity. The significant decrease of knee circumference at an average 3,3 cm allows us to conclude, that this combination ensures synergistic results - correction of localized excess fat deposits and restore of the physiological balance in treated tissue.

Additional benefits are reduction of the pain in patients with Hoffa's disease and improved self-esteem.