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RESEARCH ARTICLE

POSSIBILITIES OF AQUATIC THERAPY AND CONVENTIONAL PHYSIOTHERAPY IN LIPODYSTROPHY

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ABSTRACT

Lipodystrophy is one of the most common and the most undesirable dermatological conditions. Both slim and overweight people can struggle with it. It is possible to fight cellulite with various aquatic therapy techniques. Research goal: Goal of this dissertation is a review of literature about possibilities of aquatic therapy and conventional physiotherapy in lipodystrophy. Conclusion: The appropriate aquatic therapy and conventional physiotherapy methods are necessary to improve the flexibility, appearance and microcirculation in areas affected by lipodystrophy.

INTRODUCTION

Possibilities of Aquatic therapy and Conventional Physiotherapy in lipodystrophy. The lipodystrophy is characterized by unsightly bumps, depressions and bulges, which appear most often around the thighs, hips, buttocks, arms and abdomen. The skin in area of lipodystrophy is dry, often also rough because of trophic disorders. Lipodystrophy is often associated with the occurrence of stretch marks. Cellulite can occur at any age, but more and more often begins to appear in adolescence. It affects women, men and previously combined with its overweight and lack of physical activity, while research now shows that it also applies to athletic slim women or men (Zegarska, 2011; Haneke, 2006). In cellulite - in contrast to cellulitis - there is no inflammation, only changes in the subcutaneous tissue (Błaszczuk-Kostanecka, 2007; Pugliese, 2007; Wollina). There are two types of lipodystrophy: water (hard) and fatty (soft). It depends on the ground, on which it is formed. In the form of water cellulite, it is very difficult to distinguish it from strongly developed muscle tissue - it happens in men/women who did not have weight fluctuations, and thus their skin did not lose its elasticity (Pavicic, 2008). Cases of water type of cellulite are often found in sportsmen, dancers and teenagers. Soft cellulite, on the other hand, usually occurs in inactive men/women because it is associated with poor tension and muscle flaccidity. Often, it also occurs in men/women who were overweight and quickly returned to the optimal weight. It is also found in people with genetically conditioned flaccid skin.

Its appearance may also be caused by the use of dehydrating medications. It differs from water cellulite in that it is loose, does not stick tightly to the muscles, it usually takes up a large body surface. Changes in body position usually change the shape of the skin surface. Fatty cellulite gives the impression that it is between the skin and muscles, reminiscent of a quilted coverlet. In this form of cellulite there are often changes in the microcirculation. It should be emphasized that soft cellulite often develops from a poorly treated hard form (Quatresooz, 2006). Among the forms of lipodystrophy we can also distinguish edema cellulite (this is the heaviest of the form of cellulite), mixed cellulite (combining soft and hard cellulite), and pseudo-lipodystrophy in which there is a limp skin in the abdomen, buttocks, thighs and arms (Ignaciuk, 2003; Rossi, 2004). Aquatic therapy and conventional physiotherapy methods used in lipodystrophy. It should be emphasized that just as the reasons for the occurrence of cellulite are varied, so to combat it should be approached individually. Certainly, lipodystrophy treatment should be multi-path and based on a balanced diet, physical activity, wearing appropriate clothing (loose and airy), walking in properly selected shoes, avoiding hot baths, and avoiding long-term stress. One should also exclude coexisting diseases - cardiovascular, gynecological, nephrological, gastrointestinal, metabolic and hormonal disorders. The appropriate aquatic therapy techniques and conventional physiotherapeutic methods are also necessary to improve the flexibility, appearance and microcirculation in areas affected by lipodystrophy (Smalls, 2006; Smalls, 2005). Aquatic therapy and conventional physiotherapy methods used in lipodystrophy. It should be emphasized that just as the reasons for the occurrence of cellulite are varied, so to combat it should be approached individually.

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Lymphatic drainage: It should be used every day, using special techniques, it moves the lymph from the areas of retention. All techniques used in drainage must be pushing, they should not warm up, so they should be smooth and gentle. It is important that the upper limb is massaged in the drainage position, i.e. facilitating the outflow of the lymph. For this purpose, the limb is placed in the facade with special wedges. Selected classical massage techniques are used, such as stroking, rubbing, kneading, and compressions (Fey, 2011).

Chinese cupping massage: It seems to be a very effective method. It is certainly one of the methods with the fastest effects. Before the intervention should be applied a specially composed olive, which contains active ingredients. Then create under pressure using the Chinese bulb and move the longitudinal or circular movements towards the lymph nodes. A gentle massage improves microcirculation, accelerates metabolism and lipolysis. As a result, cellulite is reduced, the skin is smoothed, the figure is modeled and its color is improved. The process itself should last 15 to 30 minutes, repeated every 2-3 days. The series of treatments should be from 10 to 20, then prophylactically one Chinese cupping massage should be performed every week (Pelc, Ortonne, 2023; Rona, 2006; Cao, 2010). You can also use a vibration massage (specially constructed cups filled with water) improving circulation and reducing tissue tension, or manual segmental massage. Sequential pneumatic massage allows the pressure of cuffs filled with air to drain the lymph and reduce the formation of edema. During this massage, toxins and excess fluids from the retention sites are discharged in the right direction, and the tropics improve (Kasprzak, 2008).

Electro stimulation: The electro stimulation of the gluteal muscles and the back of the thighs brings tangible results in the reduction of lipodystrophy. It involves stimulating the muscles to spasms by impulses generated by the apparatus for muscle stimulation. Using two pairs of electrodes placed in the place of cellulite, we force the muscles to work, thereby reducing fat tissue and reducing the circumferences.

Ultrasounds: The basis of this therapy is the phenomenon of electro-evaporation, i.e. the opening of path in the cell membrane. This is done due to the use of an electric field and transport of active gel components inside the cells by means of impulses and phonophoresis.

Acoustic wave: Radio waves are electromagnetic waves generated by the high frequency electric current. The warming of the tissues causes various physiological and thermoregulation-related reactions. It is a controlled tissues warming, and thus safe. The operation of this treatment allows the removal of excess fat tissue, and thus the visible reduction of cellulite (de Godoy, 2011; Waniphakdeedecha, 2006).

Kinesiotape: It involves sticking spots exposed to swelling and places with circulatory disorder with special patches. Kinesiotape facilitate drainage of lymph, reduce edema, improve trophic and accelerate regeneration. Slices are practically imperceptible, because they have thickness and weight similar to human skin, they are made of cotton, do not contain glue, are resistant to water and breathable, so the risk of skin allergy is minimal (Kase, 2003).

Aquatic therapy: It is based on therapy in water, to which air with a pressure of 2 to 4 atmospheres is introduced using special nozzles. The release takes place in a specially adapted equipment in the water. Water should have a temperature between 35-37 °C.

Bubbles produced during release have a positive effect on the condition of the skin, cardiovascular system and the human nervous system. Active and passive techniques are given for improving the spinal mobility, abdominal fascia release, improve lower limb flexibility, strengthening of the gluteus muscles and strengthening of low back muscles.

Paraffin treatments: Paraffin is an unsaturated hydrocarbon obtained in the distillation of crude oil. It has a large heat capacity, i.e. it absorbs large amounts of heat and gives them very slowly. Treatments with its use reduce fat tissue and cellulite. In the prevention and treatment of lip odystrophy, graded pressure tights are also used to improve the functioning of lower limb muscles and improve circulation (Ponikowska, 2009).

SUMMARY

Literature review suggests that the problem of lipodystrophy is very common and concerns not only middle-aged men/women and overweight men/women, but also young men/women with BMI within normal limits. It is important to choose appropriate physiotherapeutic methods in the prevention and treatment of this phenomenon. These treatments should be combined with a well-balanced diet and physical activity.

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