The Fall of Cryolipolysis

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Abstract

Purpose: The purpose of this study is to examine the impact of cryolipolysis on the general population and its results on those who chose it as a therapeutic tool. The research also investigates the businesses' satisfaction by the results of the method and the expected profit.

Methodology: In this study, the questionnaire was used for data collection by Google Forms and includes questions about the treatment of cryolipolysis. The survey was held during the period April - May 2021.

Results: Out of the 300 people who answered the questionnaire, only 62 have tried cryolipolysis, of which 53 are women and 9 are men. The results showed that 30 of the 62 people who underwent cryolipolysis were not satisfied with this treatment. Besides, out of the 80 businesses, only 45 businesses owned the cryolipolysis machine. Finally, the study showed that the businesses are not satisfied with this investment (46.7%) and the results of the treatment (35.5%).

Conclusion: The results showed that cryolipolysis is a well-known method but it is not chosen as frequent as in the past by individuals and businesses for localized fat loss.

Keywords

Cryolipolysis; Local Fat; Body Contouring; Dermatology; Aesthetic; Patient Satisfaction

Introduction

Cryolipolysis is a non-invasive cosmetic procedure for localized fat loss in various areas such as abdomen, flanks, and thighs. The first cryolipolysis apparatus was introduced in 2007. It is now used to improve the body contouring and it is an alternative to liposuction and surgical fat resection. It was recently approved by FDA for fat reduction [1]. Cryolipolysis is found, through histological research, to lead to adipose catastrophe via the cooling process [2]. The adipose tissue cools and is maintained at that temperature for forty to sixty minutes. Then, the treatment area is massaged for a short while (about 5 minutes) and then the client can return home [3]. Cryolipolysis has been used for medical conditions such as pseudogynecomastia [4]. Given the fact that cryolipolysis is a non-invasive procedure, people can soon return to their work and their daily routine after the treatment [5]. However, the result as regards the decrease in fat from cryolipolysis is more gradual and less painful in comparison to surgical treatment. The cost difference and the recovery time are the reasons of choosing cryolipolysis for fat reduction [6]. There are many contraindications of cryolipolysis such as eczema, dermatitis, Raynaud syndrome, etc. Some of those conditions are common especially in the elderly people [7]. Cold urticaria and paroxysmal cold hemoglobinemia are uncommon medical conditions but also they belong to the contraindications of cryolipolysis [8].

The most common adverse effects of cryolipolysis are erythema, bruising and edema [9]. Beauty therapies have sometimes results with low satisfaction of the patient. Ineffectiveness and complications are the most common reasons for patient disappointment. The single application of cryolipolysis does not produce any significant result in fat reduction [10]. On the contrary, the research by Krueger, et al., (2014) showed that 86% of people who underwent cryolipolysis treatment saw spectacular results from the very first session, while only 1% was dissatisfied. At the same research, patient's satisfaction after one treatment was 73% in contrast to ultrasound therapy (62.3%). Also several of the patients would highly recommend the treatment. However, the long-term effect of cryolipolysis had not yet been evaluated. Also the study showed that in recent years the rate of choosing a non-invasive method for localized fat loss has increased by 137%. This increase is due to the fast pace of life and the anticipation for fast results on the body, by a process which is not time consuming [11]. Another research shows 88% of patients' satisfaction regarding cryolipolysis [12]. It is notable that the satisfaction from cryolipolysis is sometimes almost 100% [13]. This study presents at the same time the opinion of both the public and therapists regarding the effectiveness of cryolipolysis. The opinion of professionals on the value of cryolipolysis as an investment is also recorded.

Methods

A total of 300 individuals and 80 companies participated in this survey. The questionnaire was distributed electronically during the period April - May 2021 via e-mail and social networks. Likert scales were used for data collection. Likert scales are scales of agreement of the respondent with one point of view. Likert scales usually have five response values. The data are presented by numbers and are expressed as numbers and percentages.

Results

Out of the three hundred individuals the 77% had already known about cryolipolysis treatment and about 20.7% (62 people) had already tried the cryolipolysis as a method for local fat reduction. The 54% were people aged between 20-29 years old. The 35% were students. The main treated area was thighs with 41% and the second one was abdomen with 39%. The 94% has answered that the treatment was not painful. They mentioned as a side effect erythema 35% and bruising 10%. The main finding of the present study is that from the sample of individuals (62) who used the method of cryolipolysis for localized fat loss, 48.4% of them came to a conclusion that the method was not as satisfactory as they expected (Fig. 1). The 51.7% of the sample had a good experience regarding the results of cryolipolysis. The 45 of the 80 business center had cryolipolysis apparatus. The 19 of the 45 business center had the cryolipolysis apparatus more than 6 years. Also, according to the present research, 36% of the businesses are not satisfied with the results of cryolipolysis to their customers (Fig. 2).

87% of the business owners suggest another treatment to their clients to improve the results of cryolipolysis. These alternative treatments were mesotherapy (18%), radiofrequency (18%), endermology (15%), injection lipolysis (13%), cavitation (10%), nutrition and physical exercise (8%), ultrasound waves (8%), pressotherapy (5%) and massage (5%). Some of those treatments were the most popular and used in local fat reduction before cryolipolysis appears (Fig. 3). Besides 46.7% of the businesses providing the treatment of cryolipolysis claim that this investment did not bring the expected profit (Fig. 4). Additionally, the percentage of investment satisfaction compared to the effectiveness of treatment shows that the money invested in this method did not bring the desired result.

Figure 1: Graphical representation of improvement after cryolipolysis treatment.

Figure 2: Graphical representation of businesses satisfaction with the results of the treatment.

Figure 3: Graphical presentation of other suggested therapies for topical fat reduction.

Figure 4: Graphical representation of the investment.

Discussion

Cryolipolysis is popular therapy for local fat reduction according of this paper (20.7%). Several studies have been conducted claiming that cryolipolysis is the appropriate method for

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immediate reduction of local fat. In this study becomes obvious that the majority of individuals who have undergone the treatment of cryolipolysis are not satisfied with the results of this method, because they did not notice any significant reduction in local fat, although the side effects were few and mild. So, the basic criterion for their opinion was the degree of the result from the cryolipolysis application. This is the first time that a research has been recorded with negative results on the effectiveness of cryolipolysis regarding both the opinion of the public and the businesses at the same time. The possible reason for that difference compared to previous studies could be the fact that cryolipolysis was suggested by the beauty industry as the most effective method for immediate reduction of local fat and after the first period of application didn't provide the results that customers and businesses expected, compared to methods that were used in the past. This may also be due to the presence of other newer techniques which may have better results in reducing topical fat loss compared to cryolipolysis. Other treatments may be suggested as an adjunct to this. All products have a life cycle. Cryolipolysis has already begun to show a fall after 14 years of presence. It is worth noting that the cost of each treatment is also declining. In contrast to other newer treatments whose cost is comparatively higher.

Conclusion

Since a large percentage of businesses that own the machine of cryolipolysis are not very satisfied with the results of this method, they suggest additional treatments. The overall analysis of the results showed that most businesses did not have the expected profit from the investment. While the results of these new technologies are less dramatic and immediate, they occur without the level of risk and side effects associated to surgery and are preferred by the general population. In order to have the best possible results, they almost always recommend complementary therapies. Possibly the expectations of both public and therapists from the effectiveness of cryolipolysis are higher than what this method actually offer.

Conflict of Interest

The authors declare no conflict of interest

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