

Breast Reduction

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Nonsurgical Reduction Mammoplasty by Low Power Lasers

Majlesi Gholamreza
624, chaharbaghebala st, Isfahan, Iran

Introduction: Large breasts sometimes make problems (medical, social and aesthetical) and in case of Macromastia (abnormal enlargement of the breasts caused by hormonal factors or obesity) the patient feels heaviness and pain as well.

In cases that breast size is inappropriate with weight, weight loss is not effective and surgical reduction mammoplasty is the merely choice which as any surgery has its own side effects and risks (anesthesia, scars asymmetry and etc).

As we know adipose tissue is the main part of breast volume and consists of fat, water and lymph. Low power lasers can not destroy fat cells but by increasing lymphatic drainage, decreasing intra and extracellular fluid and decreasing volume of fat cells that can decrease total volume of the breast.

Therefore, as a pilot study I decided to try laser therapy of the breast in many voluntary cases (legally and ethically).

Materials and methods: GaAs laser was chosen because it is a pulse laser with deep penetration, 2.5J per point, 60J/Cm², peak power: 100W, pulse frequency: 3000, 15session, frequency: 3 sessions per week was the protocol. It was done in contact manner and moderate pressure. Based on the breast size 14 to 20 points were irradiated, clients' age range was 18 to 48 years. Malignant and corticosteroid users were not included.

The instrument is Mustang with Lo7 probes.

Although we had some measurement, the criterion was assessment of patient satisfaction which scaled from 0 to 10. It was done on 15 cases.

Results: Mean grade at the end of protocol was 7. The greater the primary size of the breast the lesser the grade of satisfaction although size reduction was significant (as achieved size was far from acceptable size).

Conclusion: Result is not as significant as surgery particularly for huge breasts but for mild to moderate size reduction it can be suitable and non-invasive. The most important factor in patient selection is her expectation. A scar free non-invasive reduction mammoplasty is preferred to a smaller breast with scar for a young female.