



Innovative Techniques for Fat Mobilisation Along with Conventional Diet Therapy for Middle Aged Patients

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Abstract

Purpose of case study review

The purpose of this case study is to not only reduce fat in weight loss programme but to increase skeletal muscles, body water, protein in the body so as to improve quality of life of the patient.

Different techniques for healthy fat loss that will be discussed in this article include diet, ayurveda supplements, acupuncture, navel oil and cupping therapy.

Keywords: Weight Loss; Fat Metabolism; Diet; Acupuncture; Cupping; Navel Oil Therapy; Ayurveda

Introduction

The World Health Organisation (WHO) defines obesity as a condition marked by an excessive buildup of body fat and as a public health issue that can result in major social, physical, and psychological issues. Obesity is defined as having a body mass index (BMI) more than 30 kg/m², which has been linked to an elevated risk for chronic illnesses, morbidity, and mortality. In order to reduce the prevalence of various metabolic illnesses, health organisations' primary goal is to prevent obesity and promote healthy weight control [1].

Moreover, during menopause, women experience a decline in estrogen levels, which can lead to a shift in fat distribution. Fat tends to accumulate more in the abdominal region rather than in the hips and thighs. This change can contribute to an increase in waist circumference, decrease in muscle mass, body water, body protein and a higher risk of metabolic disorders [5].

Case Presentation

This is a case study of a 53 year old female Mrs. Hina Doshi weighing 94.95 kg and waist circumference (BMI 36.2 kg/m², body fat 47.3%). Skeletal muscles (30.8%), body water (36.2%) and protein (11%) were low whereas body fat was high with visceral fat 18 and subcutaneous fat 41%. The patient presented with complaints of overweight, indigestion, disturbed sleep. The patient had undergone knee replacement surgery before 2 months and hence was unable to perform heavy exercises.

Discussion

The patient was put on various therapies

- **Diet:** The patient was put on hypo-caloric diet (1300 kcal/d) with small, frequent meals providing adequate ratio of carbohydrates (130g/d), protein (55g/d), healthy fats (30g/d) and fibre (25g/d). Complex carbohydrates were given in form of grains and simple, refined carbohydrates were eliminated from the diet. Sufficient fibre was included in the diet in the form

29 April 2023		
Weight	94.95kg	Severely High
BMI	36.2	High
Body Fat	47.3%	Severely High
Fat-free Body Weight	50.10kg	Standard
Subcutaneous Fat	41.0%	High
Visceral Fat	18	Severely High
Skeletal Muscle	30.8%	Low
Muscle Mass	47.00kg	Adequate
Body Water	36.2%	Low
Bone Mass	3.01kg	High
Protein	11.0%	Low
BMR	1450kcal	Standard Not Met
Metabolic Age	59	Standard Not Met

Figure 1: Various parameters of the patient before starting the treatment line (29/04/2023).

of fruits and vegetables. Healthy fat sources like walnuts, almonds, chia seeds, flaxseed, etc. were present. In order to increase body water level, more fluid was included in the diet. Protein adequacy was met by including curd, milk, pulses, legumes, etc. as the focus was to increase the skeletal muscles and muscle mass in the body.

Various foods were given to reduce the symptoms faced by the patient. As the patient was post menopausal, foods such as flaxseed were given to balance the hormones. Calcium sources such as milk, curd, and buttermilk were focused on as the risk of osteoporosis increases after menopause. Certain spices such as bay leaf were included to reduce indigestion whereas foods like chia seeds, banana and papaya were given to reduce food cravings throughout the day as they are loaded with fibre.

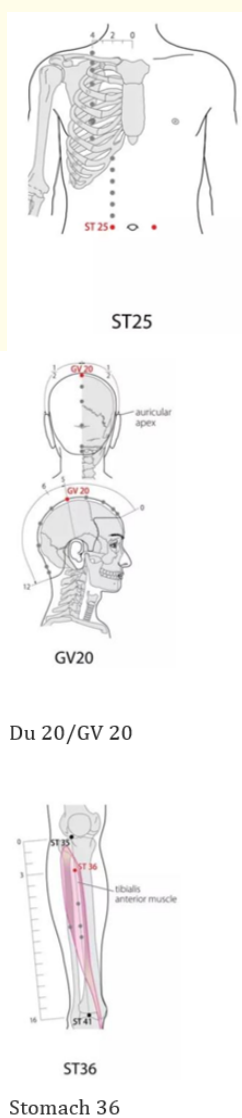
Diets high in fibre and low in glycemic index are linked to greater feelings of satiety and fewer food cravings, both of which lead to weight loss.

- **Ayurveda supplements:** Ayurvedic supplements such as triphala, haritaki, bruhadanti, etc. were used for natural detoxification of the body. These supplements reduce the likelihood of blood glucose spikes and the ensuing food cravings. This makes it simpler to maintain diet management for long-term weight loss [2].
- **Acupuncture:** By controlling hormone production, enhancing digestion, lowering inflammation, suppressing hunger, and

minimizing water retention, acupuncture can aid in weight loss. As these are all connected to weight loss and fat, the patient was given 5 sessions where different acupuncture points were focused on such as [4].

- **Navel oil:** By putting oil in the navel, you can help it pass through to the stomach, which absorbs all the body’s nutrients and distributes them. The belly button is prominent because of the 72,000 veins that are located there. Oiling the belly button helps for activation of all these nerves. Compared to other areas of the body, the inner vagus nerve and skin are separated from one another by the belly button’s thinnest layer of muscle. One can directly stimulate the vagus nerve by turning it on, which has an impact on the brain. [3] Right combination of castor and mustard oil helped to reduce bloating, detox body and eventually help in weight loss.





Hunger points were also given in auricular [therapy](#)



Figure 2: Abdominal acupuncture given to the patient for weight loss.

5 May 2023		
Weight	93.85kg	Severely High
BMI	35.8	High
Body Fat	46.6%	Severely High
Fat-free Body Weight	50.10kg	Standard
Subcutaneous Fat	40.5%	High
Visceral Fat	17	Severely High
Skeletal Muscle	31.1%	Low
Muscle Mass	47.10kg	Adequate
Body Water	36.6%	Low
Bone Mass	3.01kg	High
Protein	11.2%	Low
BMR	1452kcal	Standard Not Met
Metabolic Age	59	Standard Not Met

Figure 3: Various parameters of the patient after one week of starting the treatment line (05/05/2023).

Conclusion

After the patient was placed on the mentioned novel therapies along with hypo-caloric diet, waist circumference reduced by 2 inches with 1 kg reduction in weight and 0.7% reduction in body fat in just one week as shown in figure 2 (Weight 93.85 kg, BMI 35.8 kg/m², body fat 46.6%). Skeletal muscles, body water and protein content increased to 31.1%, 36.6% and 11.2% respectively. Secondary benefits were improvement in sleep pattern and significant reduction in indigestion.

Incorporating these ways can help manage your weight naturally and promote overall well-being. However, it is always recommended to consult a health care professional before making any significant changes to your diet or lifestyle, especially if you have any underlying health conditions.

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