

BODY CONTOURING AFTER MASSIVE WEIGHT LOSS – CASE REPORT

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The paper presents a 25-year-old woman who is using a strict diet of 1000 kcal lost 83 kg in 18 months. Despite her young age, weight loss caused numerous cutaneous fatty folds, because her skin was not elastic or resilient enough. The patient undergo a multi-stage surgical treatment aiming to rectify the deformations. This example illustrates the problems of patients having undergone intensive slimming procedures and presents surgical treatment methods that rectify typical deformations in these patients.

Key words: body contouring, plastic surgery, massive weight loss

Epidemiological data indicate that obesity has become a more and more frequent problem in many countries of the world, including Poland. It may increase the risk of developing numerous diseases and lead to important health consequences (1). There exist many conservative and surgical methods of treating obesity, which are being used in more and more patients. Surgical and non-surgical treatment of obesity may result in a considerable loss of body mass (30-90 kg) within a short period (12-24 months). Consequently, even in young people, distended skin cannot adapt to the new anatomical conditions. After massive weight loss about 25% of patients require some type of body contouring procedure (2). More and more patients undergo a bariatric treatment; therefore, body contouring has become a branch of plastic surgery which is developing intensively. Excess rolls of skin and tissue on the trunk, the buttocks, on the upper and lower extremities, often represents not only an aesthetic, but also medical problem. Sagging skin folds constitute an excessive burden for the musculoskeletal system, they make it difficult to walk, to maintain personal hygiene or to be sexually active. They frequently become sites of intertriginous dermatitis and ulcerations. Such conditions also

cause considerable psychological discomfort in patients (3).

In order to help these patients, operation techniques have been elaborated using methods proven by aesthetic surgery. The techniques include: abdominoplasty, mastopexy, brachioplasty and thighs lift. After massive weight loss, patients require surgical treatment lasting 2-3 years in order to improve their body shape (4).

The paper presents a female patient who lost 83 kg thanks to a diet. As a result, she developed large excess of loose and hanging skin requiring surgical therapy. This example illustrates the problems of patients after massive weight loss and provides surgical treatment methods that rectify typical deformations in these patients.

CASE REPORT

A 25-year-old woman controlled by a dietitian lost 83 kg (160 kg→77 kg). For 18 months, she followed a rigorous diet 1000 kcal. The patient had been obese since early childhood. She was mobilized for intensive slimming by the pressure of her environment and by willingness to make a change in her life. Despite

her young age, weight loss caused numerous hanging folds of skin, because her skin was not elastic or resilient enough. The patient decided to undergo a multi-stage surgical treatment aiming to rectify the deformations. She was operated on six times, with intervals of 3 months. Firstly, Pitanguy's abdominoplasty was carried out. Although the appearance of the abdominal walls has greatly improved, the procedure did not rectify excess skin in the horizontal dimension, which made us reduce excess abdominal skin from a cut in the medial line. In the next stage, we performed a correction of sagging skin on the arms (fig. 1A, 1B). During a subsequent procedure, we reduced sagging skin folds on the back, starting at the posterior axillary line and descending, in an oblique manner, towards the inferior scapular angle (fig. 2A, 2B). Finally, we excised skin excess on the lower extremities. Given that the

surface of tissues removed was large and that the patient had already undergone many procedures, we decided that the correction of lower extremities would be performed in two stages (fig. 3A, 3B). After all the procedures, the post-operative course was normal. After the operation of the right thigh, despite suction drainage, a hematoma occurred in the wound, but it did not require surgical intervention and was absorbed spontaneously. After each procedure, we recommended moisturization post-operative scars. Scars of lower extremities demonstrated hypertrophic features and were treated conservatively with Contartubex gel for 4 months. Aesthetic and functional results obtained thanks to the above-mentioned procedures were evaluated as very good. The patient also asked for information about opportunities to improve sagging breasts, but she finally renounced this surgery.

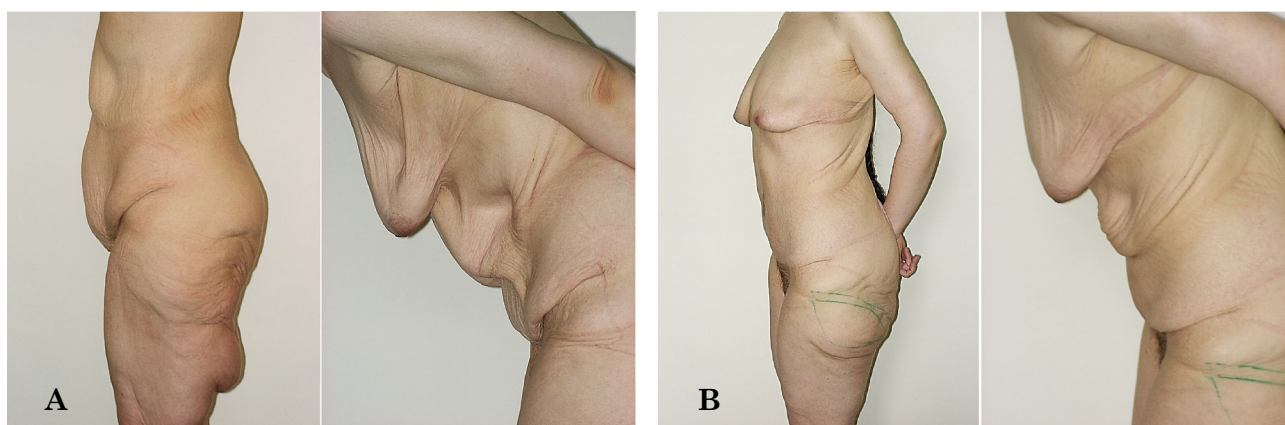


Fig. 1. A – anterior abdominal wall women who lost 83 kg, B – postoperative view after abdominoplasty

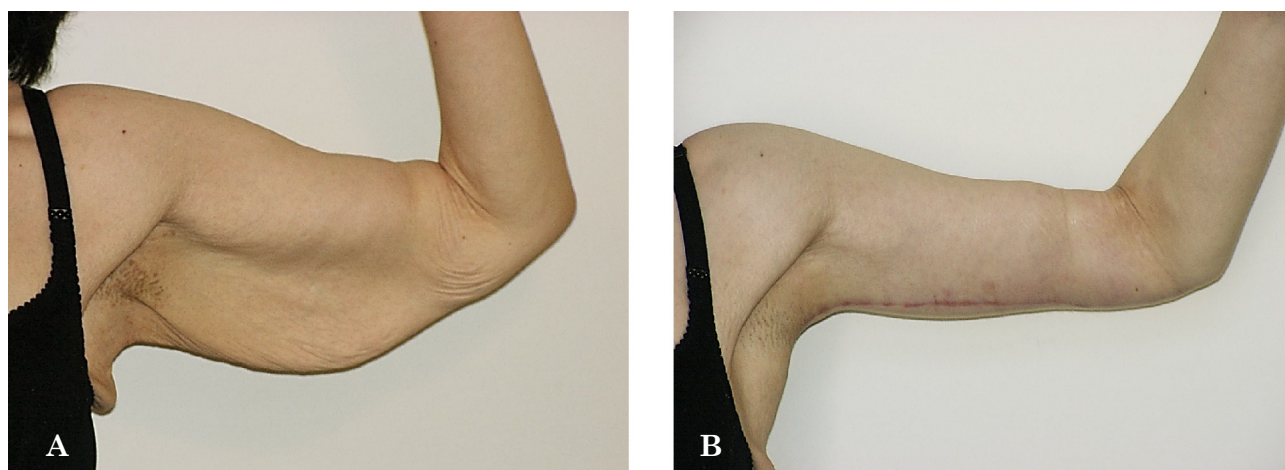


Fig. 2. A – massive arm skin ptosis, B – result 7 months after brachioplasty

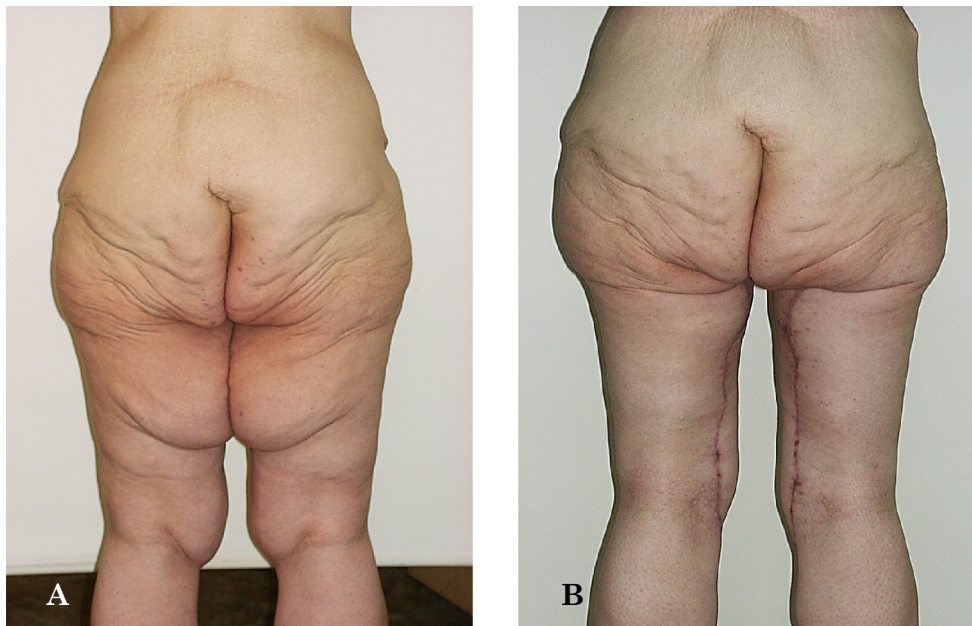


Fig. 3. A – skin excess on the thighs, B – postoperative result

Body contouring surgical procedures

Deformations resulting from massive weight loss may occur in any body region. Body contouring has to be planned individually, in order to solve the particular problem of the patient in the best manner. Basic body contouring procedures include: correction of abdominal walls, arms, thighs and breasts. In planning the treatment of these patients, abdominoplasty usually takes the first place. The method of performing this operation depends on the quantity and on the location of excess skin and subcutaneous tissue. If the deformation is limited to the anterior wall of the abdominal cavity, it is sufficient to rectify it using the Pitanguy's method (5). During this procedure, the surgeon removes excess skin using a transverse elliptical incision bordering the suprapubic region inferiorly and passing above the umbilicus superiorly. Usually, we also perform a doubling of the sheath of rectus abdominis muscles in the medial line. In some patients, the procedure is limited to the removal of a large sagging abdominal panniculus. In the most difficult cases, where excess of skin occurs on the whole trunk, it is indicated to perform a circumferential dermolipectomy (6). This procedure improves the appearance not only of the abdomen, but also of buttocks and hips. In some patients, as in the case of our case, it is not sufficient to carry out a typical abdominoplasty because of excess

skin in the horizontal dimension. In such cases, it is also indicated to perform a resection of excess skin in the medial line (7). In patients having undergone a surgical bariatric therapy with the opening of the abdominal cavity, the procedure is carried out from the cut in the old scar, this enables us to avoid additional deformations. During these procedures, particular attention should be paid to hernias which may occur in these patients. The most frequent complications of abdominal contouring include: skin necrosis, hematoma, seroma, infection and wound dehiscence.

Deformations of the contour of extremities in patients after massive weight loss are mainly observed on the arms and thighs. They take the form of sagging skin folds. In order to improve these deformations, it is necessary to remove excess skin and subcutaneous tissue. In the arm, excess of the skin is removed, with a scar planned on its medial surface. This procedure usually requires a long cut starting just above the elbow and ending in the axilla. The Z-plasty is carried out between the arm and the axilla; it decreases the effects of scar contracture and reproduces a normal axillary contour (8). Nevertheless, we should always inform the patient that this procedure leaves a visible scar which may require secondary corrective procedures.

The correction of thighs lies in removing excess skin and subcutaneous tissue from their internal surface. The incision starts in the

groin, along the lateral margin of pubic hair; from there, it is directed downwards, continuing its course on the medial surface of the thigh. Depending on the quantity of excess skin, the cut may be no more than 10 cm long, or it may reach up to the knee. After the removal of skin excess, lateral cutaneous margins are pushed upwards and medially (9). Both in the arm and in the thigh, skin should be removed in a quantity that allows us to close the wound without tension. Corrective procedures of extremities may be complicated by a partial wound dehiscence, a hematoma, or a persistent edema of the extremity.

Qualifying patients for body contouring procedures

Adequate qualification and selection of patients is extremely important in obtaining good results. Patient wishing to undergo corrective procedures should achieve an optimal body weight and maintain it for at least 6 months. If the patient plans to continue weight loss, the procedure should be postponed because it is well known that, better aesthetic results are obtained if at the moment of body contouring the BMI is lower, whereas a higher BMIs have been associated with increased complications (10).

Apart from the local state, it is very important to examine the patient's general condition. We should remember that people after massive weight loss are often anaemized and suffer from concomitant diseases (diabetes mellitus, arterial hypertension). When taking down the patient's history, particular attention should be paid to the incidence of arrhythmic disorders and of thrombotic phlebitis, with possible embolic complications (11).

Opportunities of surgical treatment have to be thoroughly discussed, because the pa-

tient's expectations are often too high and sometimes impossible to obtain. The patient should be informed that body contouring procedures leave visible scars, that healing and recovery take a long time, that wound healing problems are common, and that outcomes of surgeries are worse than those obtained in patients qualified due to aesthetic indications (12).

Surgical procedures are very extensive and are often associated with considerable blood loss. For this reason, most surgeons perform them stage by stage, in order to reduce the time and extent of operation, and the risk of complications. Most frequently, abdominoplasty take the first place. The next stages are devoted to procedures on the arms, thighs or breasts. In centers with a larger number of experienced surgical teams, more procedures can be carried out simultaneously (13).

CONCLUSION

Body contouring procedures should be individually planned, depending on the extent and location of the deformations, and patients prudently qualified for surgery. Although treatment is multi-staged and burdened with many complications most patients are satisfied with the outcome of surgery, which is the culmination of their huge effort considering weight loss. The number of patients requiring corrective procedures after intensive weight loss, both surgical and non-surgical will continue to increase, especially due to the rise in popularity of bariatric surgery. Unfortunately, the availability of body contouring procedures is limited by the lack of reimbursement of the above-mentioned by the NFZ, and need to finance the costs of surgery by the patients.

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