



Abdominoplasty in paraplegic patients

Y. Yamamoto, K. Nohira, Y. Shintomi, T. Ohura, T. Sugihara and H. Igawa

Department of Plastic and Reconstructive Surgery, Hokkaido University, Japan

SUMMARY. Obese paraplegics can suffer discomfort when they lie in a prone position and sit in wheelchairs. Two paraplegic cases who underwent abdominoplasty to eliminate such complaints are presented, with satisfactory results.

Paraplegics whose abdomen is prominent due to excessive skin and fat or stretched abdominal fascia may feel discomfort in the chest and abdomen area when prone. Sitting in a wheelchair, they may feel discomfort in the lower abdominal area. Thus, activity may be restricted and excessive effort is necessary to change their positions, which may facilitate the development of pressure sores. Generally, diet or exercise therapy are considered, but since meals are one of the few enjoyments for paraplegic patients, it is difficult to enforce diet therapy. In addition, exercise therapy is difficult for them. In certain cases surgical resection of excessive skin and fat in the abdominal area can be considered to improve the quality of life.

We have performed abdominoplasty on two paraplegic patients whose abdomen was prominent to relieve their complaints and obtained satisfactory results.

Case reports

Case 1

A 60-year-old male T11 paraplegic patient weighing 84 kg (height 170 cm), wished to undergo abdominoplasty, complaining of uncomfortable pressure in the chest and abdomen in the prone position due to abdominal prominence. This was not secondary to excessive skin and fat in the lower abdomen, but to relaxation of the abdominal fascia (Fig. 1). There was a scar from laparotomy in the middle of the abdomen and a vesical fistula was also present, so a vertical technique of skin excision was selected. The width of the resected skin was 12 cm. To tighten the abdominal fascia, the anterior sheath of rectus abdominis muscle was plicated from the pubis to the xyphoid. Suction-assisted lipectomy was also performed to remove excessive fat in the lateral abdomen. The postoperative course was uneventful. The patient was able to use a wheelchair wearing a girdle 2 weeks postoperatively. Eight months after surgery, he was well satisfied with the result (Fig. 2).



Fig. 1



Fig. 2

Figure 1—Case 1. Preoperative lateral view. Figure 2—Postoperative lateral view.

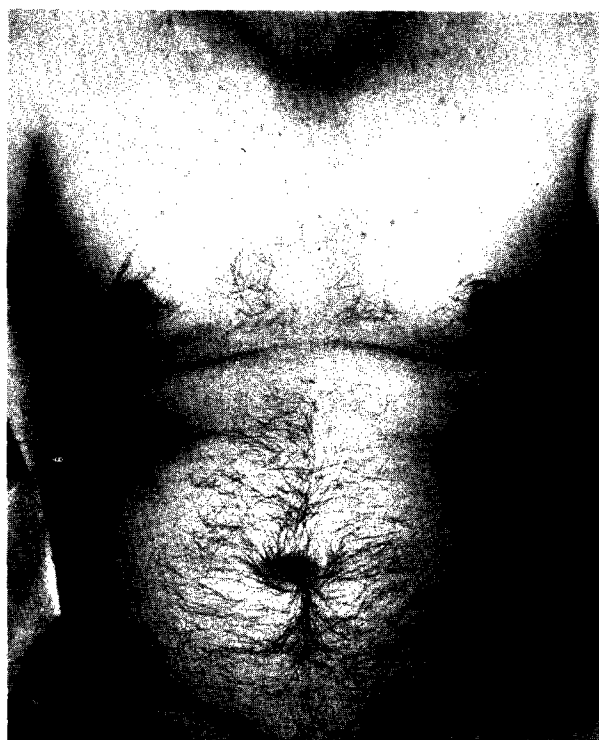


Fig. 3

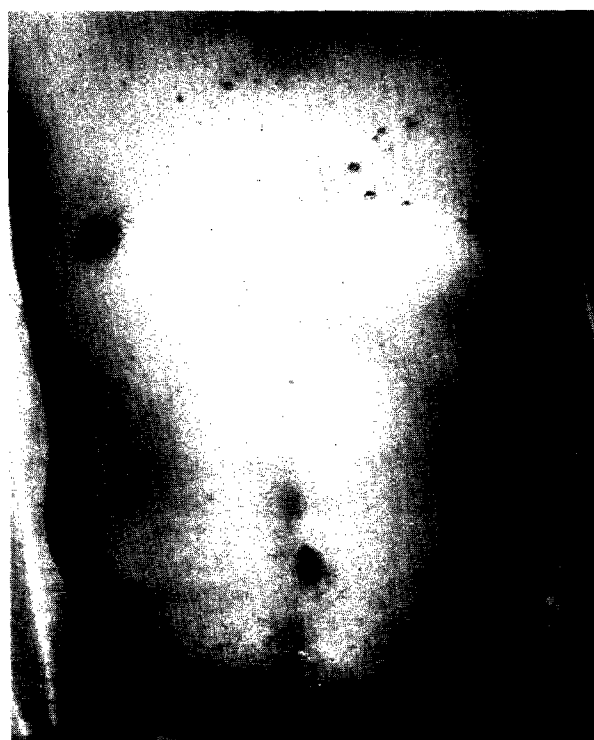


Fig. 4

Figure 3—Case 2. Preoperative front view. Figure 4—Postoperative front view.

Case 2

A 54-year-old male T11 paraplegic patient weighing 88 kg (height 168 cm) requested treatment by abdominoplasty, having similar complaints to Case 1. This patient also complained that when he was in a wheelchair he felt uncomfortable pressure in the chest and abdomen, restricting his movement. His abdominal deformity was type 5 according to the classification of Bozola and Psillakis.¹ Excessive skin and fat were obvious and the abdominal fascia was also stretched (Fig. 3). A horizontal skin incision in the suprapubic area gave access for reinforcement of the relaxed abdominal fascia, the anterior sheath of rectus abdominis muscle being plicated in the upper and lower area and the external oblique muscles dissected and tacked in the medial-inferior direction. Then, in the sitting position, excessive skin and fat in the lower abdomen were removed. Suction-assisted lipectomy was performed to remove excessive fat in the lateral and upper abdomen. The postoperative course was uneventful. The effort for the patient to change his lying position decreased and the uncomfortable pressure during sitting in a wheelchair also disappeared. Six months after surgery, his activity was no longer restricted (Fig. 4).

Discussion

Lee *et al.*² reported that 47% of institutionalised paraplegic patients were obese (body weight exceeding 110% of their ideal body weight).

It is important in abdominoplasty to understand the pattern of prominence of the abdomen before surgery. Since surgical stomas such as vesical fistula may have been created, the type of skin incision should be determined carefully. Paraplegics should wear girdles or abdominal belts after surgery because they may lose their balance and place great pressure on the abdomen during change of position.

In these two cases the abdominal circumference and the thickness of abdominal fat determined by CT decreased markedly. In contrast, the weight of the resected skin and fat and the amount of the sucked fat was not so large. However, both cases showed a decrease in body weight of 5–7 kg 4 weeks after surgery. This is possibly because the postoperative tightness produced by plication of the abdominal fascia decreased appetite or that they assumed a new attitude toward diet following the surgery.

References

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The Authors

Yuhei Yamamoto, MD, Staff Surgeon, Department of Plastic and Reconstructive Surgery, Hokkaido University, Sapporo, Japan.

Kunihiko Nohira, MD, Staff Surgeon, Soshundo Plastic Surgery Clinic, Sapporo, Japan.

Yoshihisa Shintomi, MD, Director of Soshundo Plastic Surgery Clinic.

Takehiko Ohura, MD, Professor and Chief of Plastic and Reconstructive Surgery, Hokkaido University.

Tsuneki Sugihara, MD, Associate Professor of Plastic and Reconstructive Surgery, Hokkaido University.

Hiroharu Igawa, MD, Assistant Professor of Plastic and Reconstructive Surgery, Hokkaido University.

Requests for reprints to: Dr Y. Yamamoto, Department of Plastic and Reconstructive Surgery, Hokkaido University, North 14 West 5, Kita-ku, Sapporo 060, Japan.

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