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Bodylifting: indications, technique and complications

B.M. Jones*, N.J. Toft [a]

King Edward VIIth Hospital, Beaumont Street, London W1G 6AA, UK

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Summary Bodylifting is often considered a high-risk surgical procedure. There is a widely held perception is that the operation is both time consuming and physically demanding for the surgeon, with, potentially, a long recovery and high complication rate for the patient. The senior author's experience of 16 consecutive bodylift procedures does not reflect this.

Fourteen female patients and two male patients underwent Lockwood-type bodylifting procedures at two different hospitals over a 5 year period. Patients studied were unsuitable for a standard abdominoplasty either because of excess lateral abdominal tissue, or had undergone significant weight loss and developed redundant folds of skin in a circumferential pattern around the waistline. The average Body Mass Index (BMI) prior to surgery was 26.7. Mean surgical time and hospital stay was 4.2 hrs and 3.5 days respectively. No patient required blood transfusion.

The follow up period was between 3 and 24 months. Levels of patient satisfaction were high and complications few. Only one patient required minor revisional surgery. No major complications were recorded. The commonest problem, seroma, developed in 4 out of 16 patients and was managed by simple aspiration.

This study supports the effectiveness of the lower body lift as a procedure with the potential to produce an outcome unachievable by other means with a low incidence of minor complications.

Classic abdominoplasty aims to improve the contour of the abdomen by removing excess skin, repairing rectus muscle divarication, and re-siting the umbilicus. Following its original description in 1960s South America, there was little evolution in technique[9] until Lockwood[3—5] introduced the concept of the Superficial Fascial System (SFS) thirty years later to improve results and reduce complications. The benefits of tightening the SFS in the 'high-lateral-tension' abdominoplasty also translated into improved results in many other parts of the body amenable to excisional surgery.[6] The evolution of Lockwood's ideas culminated in

* Corresponding author. Address: 14a Upper Wimpole Street, London W1G 6LR, UK. Tel.: +44 2079351938; fax: +44 2079356607.
E-mail address: bmj@barrymjones.co.uk (B.M. Jones).
[a] Royal Free Hospital, Pond Street, London NW3 2QG, UK.

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the combination of abdominoplasty and lateral thigh/buttock lift which he termed the lower body lift.

Lockwood's bodylift technique is most frequently associated with patients who have undergone significant weight loss, either through diet or bariatric surgery. Whilst certainly appropriate in such circumstances, it is also an invaluable technique for patients with anterior and lateral truncal excess in whom classical abdominoplasty will fail to recreate a satisfactory contour to the waist since it does not address the redundant lateral tissue.[12] Although relatively popular in the USA, lower body lifting has not been commonly practiced by United Kingdom-based plastic surgeons. This may be related to an expectation of a high complication rate and lengthy surgical procedure. We present the senior author's experience of 16 consecutive patients undergoing lower body lift highlighting details of patient selection, operative technique and final outcome.

Materials and methods

Patient selection: patients requesting advice regarding the contour of their abdomen, flank and trunk whom had either excessive lateral abdominal tissue in addition to an undesirable abdominal contour, or weight loss and redundant skin circumferentially, were considered for a body lift procedure. They were provided with a detailed description of the operation including all relevant potential risks and complications. The relative merits and demerits of both abdominoplasty and body lifting were explained since the latter was not an operation most patients were familiar with whilst all knew something about a 'tummy tuck'. The siting of the scar and its permanence were stressed and photographs were shown to demonstrate it. Written as well as verbal information was given and patients were encouraged to attend for a second consultation before surgery. Consent could be considered truly ''informed''.

Data collection: patient details including age, sex, Body Mass Index (BMI), and smoking status were recorded pre-operatively. Hospital stay, operative details, and complications were obtained retrospectively from case notes. Clinical photographs were taken pre-operatively and at follow up between three and twenty four months post-operatively as a minimum data set.

Surgical technique: markings were made pre-operatively as described by Lockwood with the patient standing and the feet 12 inches apart.[3,4] The underwear was outlined on the skin and the proposed line of closure marked approximately 2 cm inferior to the superior line. The amount of excess tissue laterally was estimated by pinching and both sides marked. The patient was then placed supine and the excess tissue in the abdomen marked.

Under general anaesthetic the patient was placed on an Olympic VAC PAC (Olympic Medical, Seattle) bean bag to aid positioning on the operating table. Cefuroxime 1.5 g and dexamethasone 8 mgs were administered intravenously. Starting in the left lateral down position, following standard skin cleansing and draping, 500 cc of ''tumescent'' solution (see appendix) was infiltrated into the flank, lower back and hemi-abdomen, using a blunt infiltration cannula. On the right flank the planned line of closure was incised using a knife. The superior flap was elevated towards the costal margin at a level superficial to the deep fascia. It was advanced inferiorly and divided vertically to check that the pre-operative estimate of the amount of skin to be excised was correct. The SFS of the superior flap was temporarily sutured to the lower flap and redundant tissue trimmed along the line of closure. The inferior flap was undermined downwards at a similar level beyond the trochanteric retaining ligaments. Blunt dissection using an large unconnected liposuction cannula was continued beyond the trochanter towards the knee. Anteriorly, ligamentous attachments between the skin and the inguinal ligament were released in such a way as to avoid violating the femoral triangle. Conservative liposuction was carried out as appropriate. The inferior skin flap was advanced to meet the superior flap, excess tissue was measured with the aid of Pitanguy forceps and then excised. Haemostasis

Table 1 Patient characteristics, surgical details, and complications

Patient	Sex	Age	BMI	Smoke	Operation time	Weight tissue	Post-op HB	Hosp stay	Complications	Comments
1	F	55	20.6	No	4 h	693 g	8.2	3 d	None	None
2	F	39	24.7	No	4 h	1555 g	10.2	3 d	None	None
3	F	25	31.9	Yes	4.5 h	2053 g	10.7	3 d	None	None
4	M	58	22.1	Yes	3.5 h	1281 g	10.2	4 d	Minor dehiscence	Resuture la
5	F	45	35.1	No	4.5 h	4247 g	10.7	3 d	None	None
6	F	45	24.8	No	4.5 h	2030 g	Not done	3 d	Umbilicus, contour	Revision, liposuction
7	F	47	23.1	No	5 h	2300 g	Not done	4 d	Seroma	Aspiration × 4
8	F	55	25.9	No	5 h	2566 g	12.4	6 d	Seroma	Aspiration × 1
9	F	50	—	Yes	4.5 h	1160 g	11.4	3 d	Seroma	Aspiration × 1
10	F	54	28.8	No	4 h	1922 g	10.1	3 d	None	None
11	F	54	26.6	Yes	4 h	2375 g	10.9	4 d	Seroma	Aspiration × 1
12	F	28	32.7	Yes	3.25 h	3074 g	10.5	3 d	None	None
13	F	53	23.5	No	3.5 h	1862 g	10.5	4 d	Minor dehiscence	Conservative rx
14	F	43	27.6	No	4.25 h	3517 g	11.3	3 d	None	None
15	F	54	25.4	No	4.5 h	2207 g	Not done	4 d	None	None
16	M	19	28.3	No	3.75 h	3482 g	Not done	3 d	None	None