

Buried umbilicus with inflammation due to retained rubber foreign body after liposuction

A case report

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Abstract

Rationale: Liposuction is one of the most widely performed aesthetic surgeries. It is mainly used for the correction of deep and superficial fat accumulations and remodeling of the body contour.

Patient concerns: We present a rare case of unusual rubber foreign body found within the periumbilical area during the reconstruction of buried umbilicus after liposuction. A 61-year-old female had undergone a liposuction surgery 10 years ago. Last year, she experienced signs of inflammation around the periumbilical area. The patient was treated with antibiotics and daily dressing at a local clinic. However, her symptoms did not improve with treatment.

Diagnoses: The ultrasound screening showed fluid collection at the umbilical area.

Interventions: After admission, we decided to reconstruct the umbilicus and explore the previous operative site. During reconstruction of umbilicus.

Outcomes: We finally discovered a rubber foreign body in the periumbilical area and buried umbilicus.

Lessons: Retained surgical foreign body can clinically manifest as acute reaction, such as an inflammatory response, infection, or abscess within days or weeks after the operation. Patients may complain of pain and discomfort, even months or years after the procedure. Our patient had suffered from delayed inflammation due to retained surgical foreign body after liposuction surgery. We emphasize the need for excellent communication within the surgical team to prevent the incidence of retained surgical bodies.

Abbreviation: MRI = magnetic resonance imaging.

Keywords: buried umbilicus, complication of liposuction, rubber foreign body, umbilical reconstruction

1. Introduction

Liposuction is an excellent procedure for the purpose of body sculpting that involves the removal of localized or regional deposits of adipose tissue. Since its inception in 1982 in the United States, liposuction has become the most commonly performed cosmetic surgical procedure in the field of plastic surgery.^[1]

The complication rate is very low, especially when compared with other conventional excisional surgeries, and major

complications are generally associated with improper performance of the technique and poor patient management before and after surgery.^[2]

Despite the low occurrence of major complications following liposuction, it can result in devastating cosmetic outcomes and even potentially life-threatening outcomes. Disastrous complications following liposuction are most often associated with the expertise, experience,^[3–5] and technical deficiencies of the surgeon.^[6–8]

Retained surgical bodies are any foreign bodies left inside the patient after the operation. The consequence of foreign bodies after surgery may manifest in various different forms, in various different times, including immediately after the operation, months, or even years after the surgery.^[9] To date, complications due to retained surgical bodies have not been reported in the literature surrounding liposuction surgery.

Herein, we present a rare case of unusual rubber foreign body found within the periumbilical area during reconstruction of buried umbilicus after liposuction.

2. Case presentation

A 61-year-old female patient presented intermittent discomfort, pain, and serous discharge at the site of previous liposuction operation on the periumbilical area. The patient had undergone a liposuction surgery 10 years ago. No photographic data were available to compare the condition and appearance of the umbilicus before the liposuction surgery.

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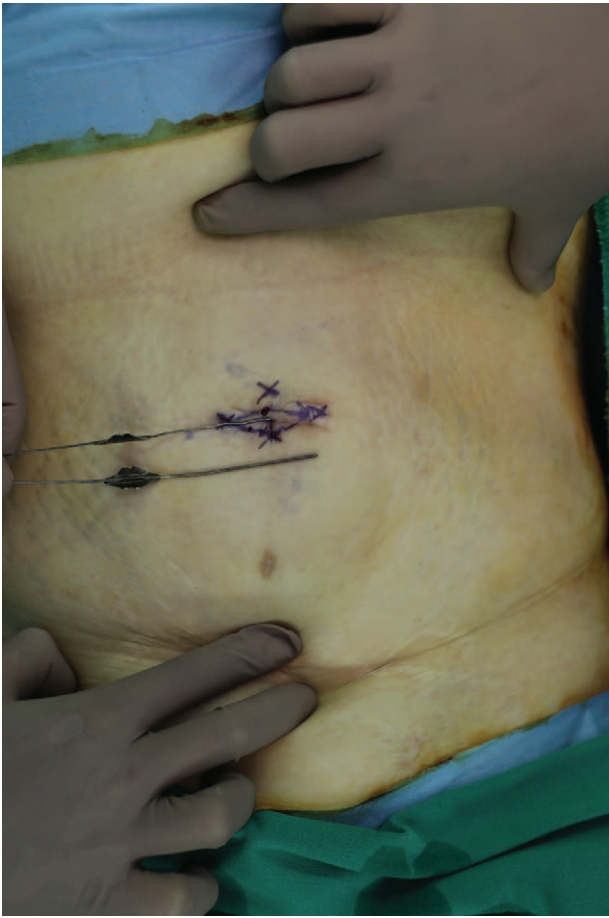


Figure 1. Preoperative pictures showing buried umbilicus with inflammation after liposuction.

According to the patient, the umbilicus had disappeared and serous discharge with symptoms of pain, itching, and discomfort had started 9 years after the liposuction. The patient had been treated with antibiotics and dressing at a local clinic. However, her symptoms did not improve with treatment.

She visited our outpatient department with a referral from the local clinic. After the initial clinical evaluation, she was referred for an ultrasound screening. The ultrasound screening showed fluid collection at the umbilical area. The size of the fluid collection was about $1.3 \times 1.3 \times 3.5$ cm. However, there was no definitive sinus tract.

With clinical evaluation and imaging study, the patient was informed that she may need to undergo surgery, including reconstruction of the umbilicus, for complete resolution from her symptoms.

The plan was to reconstruct the disappeared umbilicus and explore the previous operative site. The patient underwent surgical exploration of the previous operative site in the abdominal wall via periumbilical incisions (Fig. 1). We discovered a folded, yellow rubber foreign body in the abdominal wall. We removed the rubber foreign body in the periumbilical area. The size of the rubber foreign body was about 1.0×9.0 cm (Figs. 2 and 3).

Moreover, we found a yellow fibrotic tissue in the abdominal wall (Fig. 4). The specimen was sent for biopsy and bacterial culture test. The pathology results suggested hyaline fibrotic tissue and necrotic amorphous material. The bacterial culture test results referred to “no growth.”

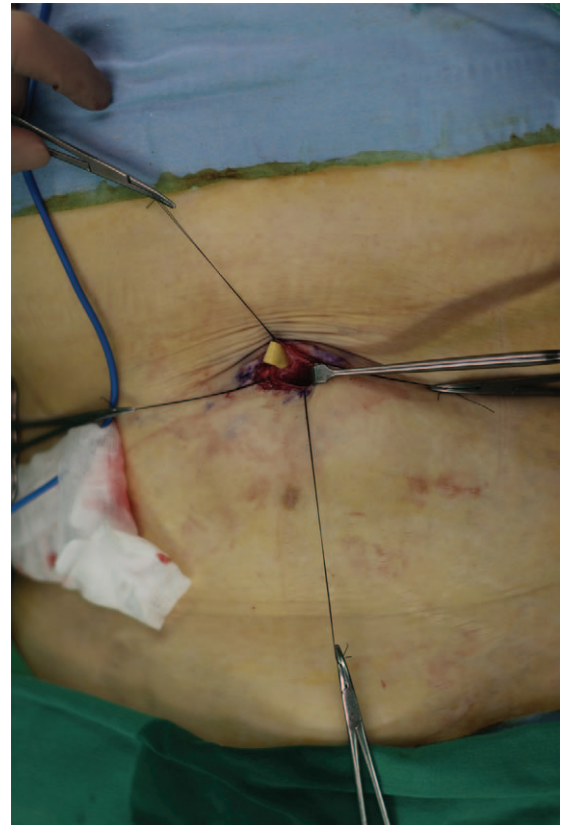


Figure 2. Intraoperative pictures showing yellow rubber foreign body in the periumbilical area.

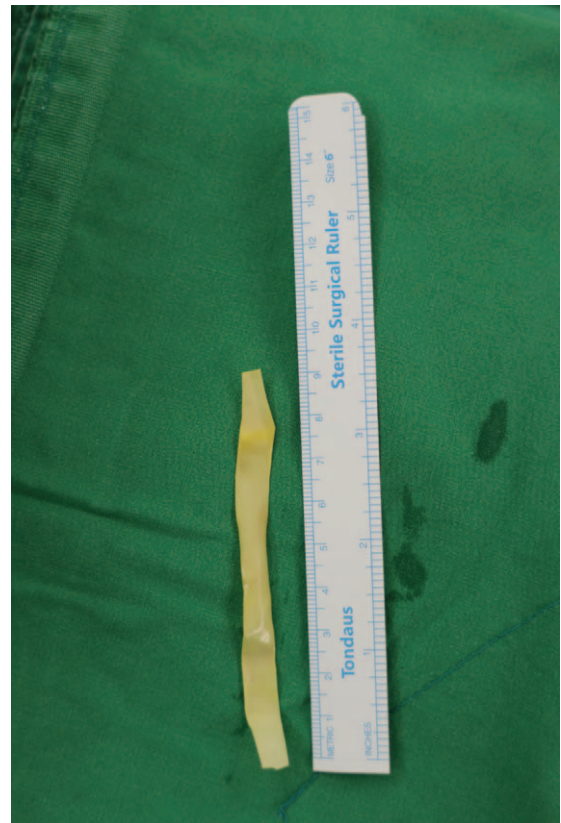


Figure 3. Intraoperative pictures showing yellow rubber foreign body in the periumbilical area.

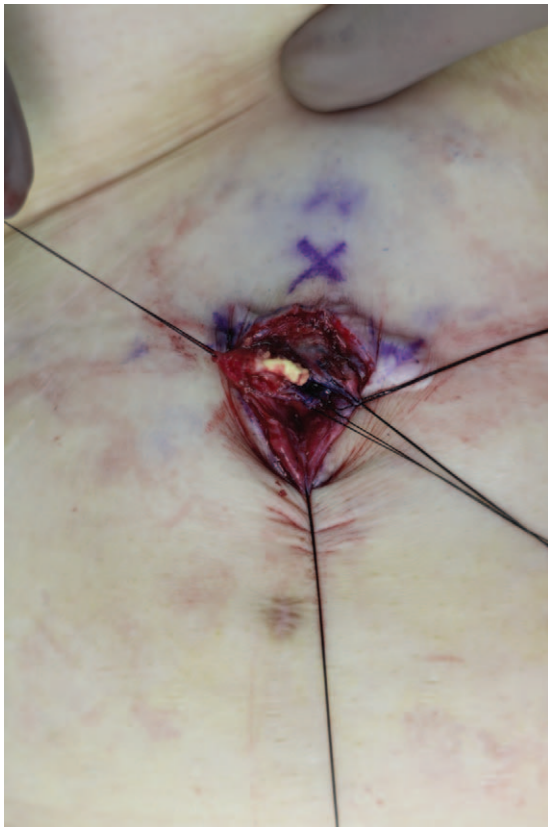


Figure 4. Yellow fibrotic tissues sent for biopsy and bacterial culture test in the periumbilical area.

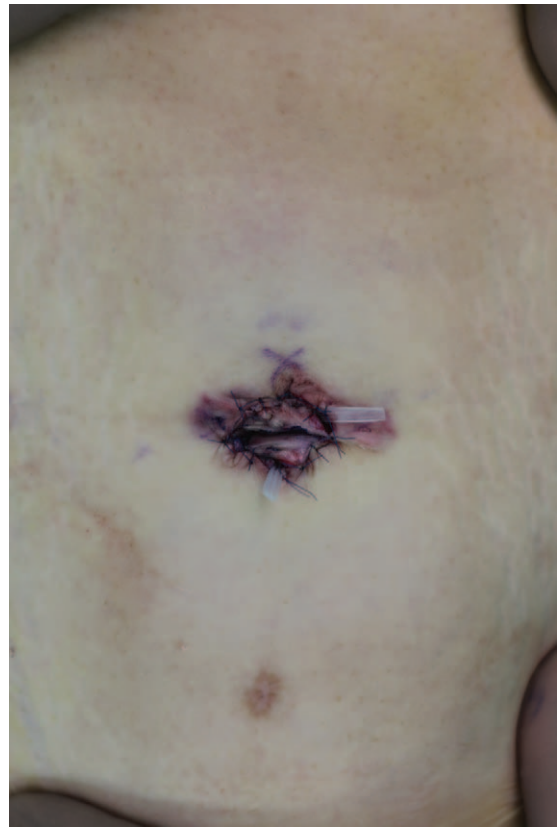


Figure 5. Intraoperative pictures showing the reconstruction of the buried umbilicus.

Subsequently, the umbilicus was found to be buried in the abdominal wall. We retracted the buried umbilicus and reconstructed the umbilicus (Fig. 5).

After the surgery, patient's symptoms had improved and she was discharged with no complications on the operative site. Now, the patient is satisfied with the reconstructed umbilicus with no symptoms of infection around the umbilical area (Fig. 6).

This study was approved by the institutional review board of the Chonbuk National University Hospital. Informed consent was given by the patients.

3. Discussion

Liposuction is a safe, simple, and effective method for body contouring. It has enormous potential for its application in ablative and reconstructive surgery, with a very low complication rate.^[2]

With appropriate patient selection and minimally traumatic techniques, many complications can be avoided. True complications include contour defects, permanent skin color changes, infection, emboli, hematomas, or seromas.^[2,10–13]

We present a rare case of an unusual rubber foreign body found within the periumbilical area during the reconstruction procedure of the buried umbilicus after liposuction. The patient had suffered from intermittent discomfort, pain, and serous discharge at the site of the previous liposuction operation on the periumbilical area. Ultrasound, magnetic resonance imaging (MRI) screening, or other imaging studies should be considered for patients experiencing pain, discomfort, and/or serous discharge at the operative site after liposuction surgery.

The problem of retained surgical bodies after surgery is an issue for both surgeons and hospitals. They have potentially harmful consequences for patients, as they can be life-threatening, requiring an additional, otherwise unnecessary operation.^[9]

Retained surgical bodies can clinically manifest as acute reaction, such as an inflammatory response, infection, or abscess within days or weeks after the operation. Furthermore, retained surgical foreign bodies inside the body cavity may also manifest as aseptic inflammation or exudative without infection, leading to nonspecific manifestation. Patients may complain of pain and discomfort, even months or years after the procedure.^[9]

Our patient had suffered from delayed inflammation due to retained surgical foreign body after liposuction surgery. We emphasize the need for excellent communication within the surgical team to prevent the incidence of retained surgical bodies.

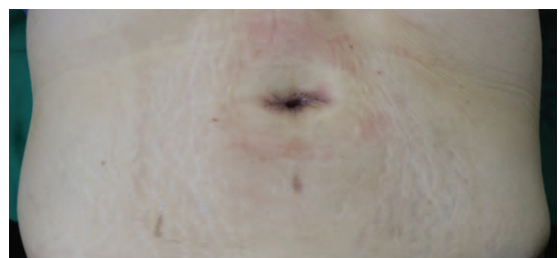


Figure 6. Patient after removal of rubber foreign body and reconstruction of buried umbilicus.

Author contributions

Writing – original draft: Jong-Lim Kim.

Writing – review & editing: Jin Yong Shin.

Supervision: Si-Gyun Roh, Suk Choo Chang, Nae-Ho Lee.

Conceptualization: Nae-Ho Lee.

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