Poland Syndrome: Aesthetic Result After Late Seroma and Implant Removal Without Replacement

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We present a case of a delayed seroma with a fibrous capsule formation after insertion of a textured silicone gel–filled implant for the surgical correction of Poland syndrome, in spite of an uneventful intraoperative and early postoperative course. The result achieved after treatment of the seroma without reinsertion of an implant was aesthetically satisfactory. (Aesthetic Surg J 2008;28:101–103.)

There are few published works on treatment of Poland syndrome by silicone implants to be found in the medical literature, and most of them are case reports.1–4 The use of breast implants is associated with a number of complications, including hematoma, seroma, infection, altered nipple sensation, asymmetry, and capsular contracture.5 This case report presents a delayed seroma with a fibrous capsule formation after insertion of a textured silicone implant for the treatment of Poland syndrome and the satisfactory aesthetic result after removal and no reinsertion of the implant.

CASE REPORT

In August 2005, a 37-year-old male patient underwent an operation for the treatment of left-side Poland syndrome chest wall deformity (Figure 1). Clinical, radiologic, and ultrasound studies of the thoracic area were performed. With the patient under general anesthesia, a 230-cc gel-filled textured silicone implant, rectangular in shape and with a higher projection on the superior portion, was placed via an endoscope-assisted transaxillary approach in the subglandular plane.6 This specific implant is commercially available from Silimed Comércio de Produtos Médico-Hospitalares Ltda in Brazil. The patient was discharged on the first postoperative day. The 3-month postoperative result is shown in Figure 2.

In April 2006 the patient experienced progressive discomfort and enlargement of his left breast over a period of 1 month. He did not recall any traumatic injury in the chest area. Physical examination showed breast asymmetry. The patient’s left breast was firmer and larger than the right. Routine laboratory test results were normal. Ultrasound scanning of the breast showed a significant volume of fluid surrounding the whole extension of the implant. Aspirations of the fluid under ultrasound guidance were attempted. A sample of the fluid was sent for culture and was returned with a negative result. Broad-spectrum antibiotics were prescribed before the result of the culture and were continued for 7 days. The patient was diagnosed as having a delayed seroma (Figure 3).

In May 2006, the patient was admitted for a second operation. The inframammary fold incision was used. After incision of the fibrous capsule, approximately 130 mL of seroma fluid was drained from the capsule (Figure 4). After drainage of the fluid and removal of the textured implant, the fibrous capsule was evaluated and irrigated with 0.9% saline solution. There was neither a sign of recent nor active bleeding from the capsule wall. The implant was intact. After initial insertion of an implant of 190 and then 230 cc, both sizes proved to produce an overcorrection in the projection of the left breast and of the areola-papillary complex (Figure 5). Therefore it was decided not to reinsert any silicone implant. The suction drainage was kept for 24 hours, and the patient was discharged the second postoperative day. The ultrasound scan of the breast, 5 and 12 months after the second operation, showed no collection of fluid, and the aesthetic result achieved is shown after 14 months (Figure 6).

DISCUSSION

The incidence of periprosthetic seroma during the immediate postoperative period after insertion of a silicone implant usually occurs in the first 7 to 10 days after surgery.3 Gatti7 presented a series of 5 patients with Poland syndrome who received customized implants made of the solid, extra-soft polymer in the superior portion and

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silicone gel with a saline fill option for the breast portion of the implant. Early seroma formation was seen in 2 patients, and needle aspirations were required to resolve the problem.\textsuperscript{7} Zhang et al\textsuperscript{8} reported the use of a customized, textured silicone implant for reconstruction of a Poland syndrome chest wall deformity in 7 male patients. Early seroma was diagnosed in 2 patients, and needle aspiration was used.\textsuperscript{8}

Textured implants, whether filled with silicone or saline solution, tend to collect fluid around them for a considerable time. Late seroma after aesthetic breast augmentation, even months after insertion has been report-
In most cases, the fluid reabsorbs spontaneously, and on occasion the patient and surgeon may believe they are dealing with a deflation. The ultrasound scan is valuable in the identification of the intracapsular fluid collection.10

The ultrasound-guided aspirations did not result in improvement of the symptoms and the patient underwent a second operation in an attempt to remove the seroma and replace the previously inserted silicone implant. The inframammary fold incision was chosen to have direct access to the seroma removal and facilitate the replacement of the implant. Because of the formation of the fibrous capsule, any attempt to insert a new textured implant caused an overprojection of the left breast when compared with the right one. When no implant was inserted, the projection and the aesthetic appearance of the left breast almost matched the right one. For this reason, it was decided not to reinsert any implant.

A possible explanation for the success of the aesthetic correction, even though no implant was reinserted, could be that the fibrous capsule formation around the previously inserted implant might have been thick enough to correct the concave defect seen in Poland syndrome. Another possible explanation could be that the collection of seroma fluid in the implant pocket corrected this defect. However, ultrasound scans at 5 and 14 months after the second intervention showed no significant collection of fluid. The patient has been followed up for 14 months, with satisfactory aesthetic results and no further complications.

**DISCLOSURES**

The authors have no financial interest in and received no compensation from manufacturers of products mentioned in this article.

**REFERENCES**