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The inframammary approach for the correction of iatrogenic synmastia[☆]

Synmastia is the presence of a medial confluence of the breast resulting in a web across the midline and the absence of a 'cleavage'. The commonest cause of synmastia cited in the literature is iatrogenic, following bilateral breast augmentation whereby overaggressive dissection of the medial aspect of the implant pocket results in a communication of both implant pockets across the midline.

Congenital synmastia is rare. Nevertheless, the exact incidence of both iatrogenic and congenital synmastia is not known. We present an unusual case of iatrogenic synmastia along with the surgical technique to correct the deformity.

A 25-year-old female presented with 'loss of cleavage' following two previous operations to her sternum. She had cysts excised from the sternal area at age 19 and developed webbing across her sternum post-operatively. She subsequently underwent a scar revision at age 21 with no improvement to the appearance of her cleavage. She was otherwise happy with the size of her breasts, had no other significant medical history, did not take any regular medications and was a non-smoker.



Figure 1 Pre-operative views of the patient in the upright (top left) and supine (top right) positions. In comparison, post-operative views (bottom left and right) of the patient at 4 months after the operation, demonstrating correction of the synmastia by absence of the web across the midline and the presence of a cleavage.

* This work (wholly or in part) has not been presented at any meeting.



Figure 2 Intra-operative views of the patient showing the inframammary crease incisions and the two rows of markings where the dermal-periosteal sutures were placed.

Physical examination revealed a matured, flat vertical midline scar over her sternum, 34E cup breasts with a medial confluence measuring 1.5 inches (3.8 cm) away from the sternum (Figure 1). Options for management of this problem were discussed with the patient, including no treatment, but the patient was keen to proceed to surgery.

The inframammary creases and synmastia were marked pre-operatively with the patient standing up. Intra-operatively under general anaesthesia, liposuction of the presternal area was carried out using a tumescent technique, i.e. infiltration with a mixture of 1500 i.u. (international units) hyalase, 1 mg adrenaline and 20 ml of 0.5% marcaine in 1000 ml of Hartmann's solution. Two rows of markings (2–3 cm apart) were made either side of the vertical scar, medial to the edge of the sternum (Figure 2). Incisions were then made at the medial end of the both inframammary creases as shown in Figure 2. An absorbable monofilament suture, 2/0 PDS (polydioxanone, Ethicon UK) was used to suture the dermis to the periosteum of the sternum at the corresponding marks facilitated by a lighted retractor. The skin incisions were closed in layers.

Post-operatively, a stabiliser band (Implant Stabiliser Band, Marena, USA) was worn for six weeks to encourage adherence of the presternal skin to the underlying sternum. At regular review until 4 months post-operatively, correction of the synmastia and the presence of a cleavage was maintained (Figure 1).

Various methods for correcting iatrogenic as well as congenital synmastia have been described. Spence et al. who introduced the term symmastia in 1984, used laterally based breast parenchymal flaps and Y to V advancement for the skin in a cephalad direction.¹ In cases of synmastia following breast augmentation, several techniques have been described. Bostwick recommended total capsulectomy, medial suture repair, lateral release and placement of a textured implant to encourage adhesion.² Becker et al. incised the anterior and posterior capsule medially and sutured the capsule flaps to each other, followed by insertion of adjustable implants with subsequent filling post-operatively.³ Foustanos et al. also incised the anterior and posterior capsule and sutured the capsule flaps to each other. In addition, they performed transcutaneous suturing of the presternal soft tissues to the sternal periosteum with an absorbable suture.⁴ In a case of congenital synmastia, Salgado and Mardini used a periareolar incision, liposuction of the presternal area and placement of midline sutures.⁵

In our patient, the senior author elected not to use the pre-existing midline scar due to the possibility of formation of a hypertrophic or even keloid scar. The choice of inframammary crease incisions was made as the scar is less visible, but also provided generous access to the presternal area for suture placement. Liposuction to the presternal tissues removed the excess subcutaneous component and created a raw surface for adherence to the periosteum of the sternum. Most importantly, the outcome of this procedure was deemed to be satisfactory by both the patient and the surgeon. Furthermore, this technique can be appropriately employed in patients with either iatrogenic or congenital synmastia.

Synmastia is a difficult and uncommon problem faced by plastic surgeons. We present an unusual case of iatrogenic synmastia with a pre-existing midline scar. Although the temptation to use the pre-existing scar is great, the ultimate outcome of the scar is unpredictable. Despite the paucity of literature on this problem, a combination of techniques was employed to give the patient an aesthetic and reliable final outcome.

Conflict of interest

None.

References

- Spence RJ, Feldman JJ, Ryan JJ. Symmastia: the problem of medial confluence of the breasts. *Plast Reconstr Surg* 1984;73: 261–9.
- Bostwick III J. *Plastic and Reconstructive Surgery of the Breast*. 2nd ed. St. Louis: Quality Medical Publishing; 2000.
- Becker H, Shaw KE, Kara M. Correction of symmastia using an adjustable implant. *Plast Reconstr Surg* 2005;115:2124–6.
- Foustanos A, Zavrides H. Surgical reconstruction of iatrogenic symmastia. *Plast Reconstr Surg* 2008;121:143e–4e.
- Salgado CJ, Mardini S. Periareolar approach for the correction of congenital symmastia. *Plast Reconstr Surg* 2004;113:992–4.

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