Macrothelia, or nipple hypertrophy, is a condition that may cause severe psychological distress to those who suffer from it. Patients most often experience embarrassment when wearing tight-fitting or light-colored clothing as well as swimwear or sports apparel. Efforts to conceal prominent nipples through taping or padding may lead to chafing or ulceration that causes physical discomfort in addition to psychological distress. Typically, this condition manifests itself during adolescence or pregnancy and may have a hereditary component.

Although not well categorized, previous reports suggest ideal nipple proportions to be approximately 1 cm in diameter with 1 cm of projection and in a ratio of 1:3.6 nipple-to-areola diameter.

Numerous reports on nipple reduction exist including the circumcision, geometric nipple, triple-flap, sinusoidal, “Chullo-Hat,” and top hat techniques. Although effective in their primary goal of reducing nipple diameter and projection, these techniques suffer from imperfect aesthetic outcomes with noticeable scarring patterns, anatomically anomalous shape, and a smoothing of the natural texture of the nipple. We propose a simple technique to nipple reduction that improves upon previous techniques and creates a more naturally appearing nipple.

METHODS

Surgical Technique

The reduction technique involves the creation of 4 symmetric triangles with apices at the midpoint of the nipple (Video 1). The desired projection of the nipple is determined preoperatively and marked at 4 points reflecting each of the cardinal directions. These 4 points correspond to the bases of the resulting triangles. A 3-0 nylon suture is placed between the 2 points comprising the North–South axis and held taut with the surgeon’s nondominant hand. An 11-blade scalpel is then used to excise a wedge of tissue perpendicular to the North–South axis, thus creating 2 semicircular flaps resembling a clamshell. The 3-0 nylon suture is again used to make a knot that is left floating and is pulled out through the incision. The knot will be used to tie the 3-0 nylon suture from the East–West axis, which is placed between the 2 points comprising that axis and held taut as well. The resulting closure of the 4 triangles create a “jester’s hat” which is intended to recreate the natural nipple ruffles. 

Four patients have undergone this technique at a single institution with 100% patient satisfaction and no postoperative complications. Nipple sensation was maintained in all patients postoperatively. A 4-flap nipple reduction technique is a viable alternative to previously described techniques, which may offer more anatomically congruent results.
nondominant hand. A similar wedge of tissue is now excised using an 11-blade scalpel, this time perpendicular to the East–West axis. The resulting 4 triangular flaps now resemble a jester’s hat. The 4 points are sewn together with a 4-0 chromic suture, creating an aesthetically pleasing and anatomically accurate nipple (Fig. 1).

RESULTS
This technique was performed on 4 patients at our single institution over the past year (Figs. 2, 3). All patients experienced symptoms of psychological distress related to the size of their nipples after breastfeeding before presentation. Each patient underwent reduction of their nipples with an average follow-up of 6 months. All patients were pleased with their results and would undergo the procedure again. No surgical complications occurred during the follow-up period, and all patients maintained nipple sensation postoperatively.

DISCUSSION
In our experience, previously described techniques in nipple reduction result in poor aesthetic outcomes, which include noticeable scars and alterations in the natural texture of the nipple. For example, the similarly described “Chullo-Hat” technique relies on the creation of 2 fish-mouth–type flaps for nipple reduction, and when sutured together, it resembles the appearance of a clamshell with Video Graphic 1. See video, Supplemental Digital Content 1, which demonstrates the 4-flap “jester’s hat” technique for nipple reduction. This video is available in the “Related Videos” section of the Full-Text article on PRSGlobalOpen.com or available at http://links.lww.com/PRSGO/A371.

Fig. 1. Postoperative clinical image after 4-flap “jester’s hat” reduction of nipple demonstrating natural appearing texture of nipple.

Fig. 2. Preoperative clinical image demonstrating nipple hypertrophy and pronounced nipple projection.

Fig. 3. Postoperative clinical image after 4-flap “jester’s hat” reduction of nipple demonstrating decreased nipple projection.
a linear scar traversing the diameter of the nipple. The 4-flap “jester’s hat” technique for nipple reduction is a modification of this and other previously published techniques that allows for a more anatomically congruent and aesthetically pleasing result. The incorporation of 4 triangular flaps, which are cinched together centrally, not only hides scars within the nipple but also recreates the natural rough appearance of the nipple. This technique is easy to learn and reproduce and versatile in its application, allowing for reduction of any size nipple. In our small series of patients, all were satisfied with their results and would undergo the procedure again. Importantly, nipple sensation was maintained in all patients, and none experienced any postoperative complications. This technique will be a valuable tool in the breast surgeon’s armamentarium and can supplement other techniques when applicable.

CONCLUSION

The 4-flap “jester’s hat” technique of nipple reduction is an easy and predictable option for nipple reduction in macrothelia, which creates an anatomically accurate and aesthetically pleasing result.