A Modified Inverted Nipple Correction Technique That Preserves Breastfeeding

Rui Feng, MD; Weiwei Li, MD; Bing Yu, MS; and Yudan Zhou, MS

Abstract

Background: An inverted nipple may affect the appearance of the breasts and breastfeeding, but traditional surgical procedures might injure the normal lactiferous ducts and damage sensory functions.

Objectives: The aim of the study was to propose a minimally invasive and reliable method that preserves breastfeeding and corrects grade I and II inverted nipples.

Methods: This was a randomized controlled trial of 230 female patients with unilateral or bilateral inverted nipples and 30 patients with normal nipples who visited the Preconception Counseling Department of our hospital from February 2009 to January 2016. The nipples in the distractor group underwent an operation with a distractor, while the control nipples were treated with daily exercises. The intervention lasted 6 months. The primary endpoint was full-term pregnancy breastfeeding for 4 months. The secondary endpoint was the completion of lactation without obvious complications, such as mastitis and nipple craze.

Results: Grade I and II nipples achieved increased height after the distractor was worn for 6 months and at 37 weeks of pregnancy ($P < 0.05$), while the control nipples achieved only a marginal improvement at 37 weeks of pregnancy. In the distractor group, the success rates were 84.9% and 79.3% for grade I and II nipples, respectively, compared with the control group (52.5% and 38.9%, respectively) ($P < 0.05$). After treatment with the distractor for 6 months, nipples in the distractor group showed no complications, such as skin numbness or nipple necrosis.

Conclusions: The use of a distractor is a reliable and minimally invasive method for correcting grade I and II inverted nipples while preserving breastfeeding.

Level of Evidence: 2

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An inverted nipple is a congenital breast deformity commonly seen in women in which the nipple is partially or entirely buried under the areola surface.1 It can be present unilaterally or bilaterally. Park1 reported that the prevalence of congenital inverted nipples was 3% among the 1625 subjects examined. According to Schwager,2 the frequency is 17.7 per 1000 women. Inverted nipples may cause problems such as breastfeeding difficulties and psychological distress. They are caused by fibrous bands retracting the nipple to the base, resulting in a short and retracted lactiferous duct.1 Such defects can cause both aesthetic and functional problems. In more severe cases, infection and inflammation can occur. Moreover, breastfeeding becomes difficult or impossible because of the lack of nipple erection.1

Dr Feng and Mr Yu are Attendings, Department of Breast Surgery, Tianjin Central Hospital of Gynecology Obstetrics, Tianjin, China. Dr Li is the Director and an Attending, Department of Plastic Surgery, Beijing Tsinghua Changgung Hospital, Tsinghua University, Beijing, China. Mr Zhou is an Attending, Department of Plastic and Aesthetic Surgery, Huanggang Central Hospital, Hubei, China.

Corresponding Author: Dr Weiwei Li, Department of Plastic Surgery, Beijing Tsinghua Changgung Hospital, Tsinghua University, Beijing 102218, China. E-mail: mimilee2004@126.com
Traditional surgical procedures that correct the inverted nipple might permanently compromise breastfeeding, with a few exceptions. Some surgical methods require cutting of the contracted lactiferous ducts and are therefore not suitable for patients who plan to breastfeed, and other surgical methods may change the shape or size of the areola. Importantly, careful consideration must be made prior to performing this procedure, as division of the ducts will generally preclude the ability to breastfeed. Currently, many techniques exist for correcting the inverted nipple, but the preservation of breastfeeding is typically not prioritized. In women of childbearing age, the correction of the inverted nipples should preserve breastfeeding, as breastfeeding strengthens the bonding between the mother and the baby and has a number of benefits for the baby, and correcting the nipple reforms the breast’s appearance and boosts the confidence of the affected women.

The aim of this study is to propose a minimally invasive and reliable method that preserves breastfeeding and corrects grade I and II inverted nipples. This technique relies on the low and consistent pressure exerted by the instrument on the inverted nipple, extending the retracted lactiferous duct, which will stimulate the production of soft tissues and form the bulkiness required to support the nipple. This procedure requires no buried sutures incisions or disfiguring flaps to stabilize the nipple to its normal anatomic configuration. In addition to avoiding invasive procedures, the approach proposed herein has achieved promising results in terms of preserving breastfeeding, nipple sensation, and aesthetic appearance.

METHODS

Study Design and Patients

This was a randomized controlled trial of 230 female patients with unilateral or bilateral inverted nipples and 30 patients with normal nipples who visited the Preconception Counseling Department of the Breast Surgery Clinic of our hospital from February 2009 to January 2016. Only the women with inverted nipples were randomized to the distractor and control groups. The women with normal nipples were assigned to the normal group.

The inclusion criteria were patients 1) diagnosed with congenital inverted nipples; 2) with grade I or grade II congenital inverted nipples; 3) 22 to 35 years of age; 4) who will breastfeed the baby; 5) with no allergic reaction to metals; 6) with no preexisting diseases that may hamper breastfeeding; and 7) who agreed to be enrolled in the study and signed the informed consent form.

The study was approved by the ethics committee of Tianjin Central Hospital of Gynecology Obstetrics. Written informed consent was obtained from each woman.

We think this procedure will work in non-pregnant women. However, in this study, we evaluated the breastfeeding rate after therapy and evaluated only the patients who will eventually be breastfeeding.

Randomization

The nipples were randomly assigned 1:1 to the distractor and control groups using sequential envelopes. The envelopes were prepared by an independent statistician using random number tables.

Surgical Technique

All operations were conducted by the first author (R.F.), who was assisted by the doctors in the same group. All surgeons were chief surgeons, with more than 20 years of experience in plastic surgery who had majored in mammoplasty and had conducted over 100 breast surgeries per year.

Referring to Long’s method, a distracter was made using the distal end of a 10-mL disposable syringe (Figure 1). The length of the syringe was 1.5 cm to 2 cm, and pinholes were punctured at 3, 6, 9, and 12 o’clock at the apex of the distracter. The surgeries were performed under local anesthesia. The inverted nipple was pulled out after lidocaine infiltration at the base. An 18 G syringe needle was used as a guide, and 2 steel wires with a diameter of 0.8 mm were crossed through the nipple base and fixed to the distracter. The areas where the distracter contacted the skin were protected by Vaseline and gauze. Figure 1 shows the wire path through the nipple. The wires penetrating the nipples are shown as black lines. The dotted line indicates the portion of the wire under the base of the nipples.

The surgery cost 2000 RMB, approximately 280 dollars. The operation fee was paid by the patients.

After surgery, the patients could wear a brassiere normally. The wires were tightened each month to maintain the extent of the nipple eversion. A sufficient blood supply to the nipple was ensured during the distraction, which is crucial to prevent nipple necrosis. The wires and the distracters were removed after 6 months of gradual traction once the nipples were longer than normal.

The women were taught exercises to loosen the adhesions of the nipple. The exercises had to be performed on control nipples each morning for 6 months.

Follow-Up

After treatment, all patients were assessed at the outpatient clinics 1, 3, and 6 months after the operation. They were allowed to come to the clinic anytime. The wounds were protected with Vaseline. Patients who became pregnant...
within the 6-month follow-up received appropriate nursing care. The nipple height was measured in the supine position and always by the same physician. The height was measured 3 times vertically from the root of the nipple, and the average measure was taken. Photographic documentation was recorded. The cotton-swab brush sensitivity test was performed by the surgeon.

The patients were excluded from the analysis if 1) they stopped wearing the distracter before postoperative 6 months; 2) they terminated the pregnancy; or 3) the newborn did not accept breastfeeding.

Additional follow-up was performed by telephone after the 6-month period. The total follow-up period ranged from 8 to 55 months after treatment (mean, 19.5 months). The data were reviewed after all data were collected.

Observation Indexes

The nipple height in the supine position was measured before the operation at 1, 3, and 6 months, and at 37 weeks of pregnancy. Breastfeeding was reported 4 months after delivery. The occurrence of mastitis and chapped nipples was recorded.

The appearance of the nipple was graded as 1) very satisfying (the nipple had a cylindrical form, without necrosis or infection, and without the loss of feeling or erectile function); 2) satisfying (the nipple had a cylindrical form but with visual scars, without necrosis or infection, and with a mild loss of feeling or erectile function); and 3) dissatisfying (the nipple was deformed, with obvious scars, infection, necrosis, loss of feeling, or loss of erectile function).7

Endpoints

The primary endpoint was full-term pregnancy breastfeeding for 4 months. The secondary endpoint was complete lactation without obvious complications such as mastitis or nipple craze.

Adverse Reactions

Adverse reactions were monitored and included nipple necrosis, infection, and the recurrence of nipple retraction after removal of the distractor.

Sample Size

The sample size was calculated using $n = (U ß + U ß)/(1-P)^2$, where $n$ is the sample size of each treatment group. When $\alpha = 0.05$ and $\beta = 0.1$, $U ß (0.05) = 1.65$ and $U ß (0.1) = 1.28$. $P_0$ represents the original curative effect and $P_1$ represents the expected curative effect, which were 15% and 30%, respectively. Therefore, each group had to include 133 cases, for a total of 266 cases. Considering a 10% dropout rate, the estimated sample size was 292.

Statistical Analysis

Statistical analysis was performed using SPSS 18 (IBM, Armonk, NY, USA). The analysis used all enrolled subjects. The method of carrying forward the last observation was used to impute missing data from missed visits. Continuous data were presented as the mean ± standard deviation and analyzed using ANOVA with Tukey’s post hoc test. Categorical data were presented as frequencies and analyzed using Fisher’s Exact test. Two-sided $P$ values of <0.05 were considered statistically significant.

RESULTS

Characteristics of the Subjects

Figure 2 presents the nipple flowchart. The mean age of the patients was 27.7 years (range, 22-35 years). According to the Han and Hong classification,8 196 nipples were grade
I and 195 were grade II, meaning that 391 inverted nipples were included. In the distractor group, the distracter was used on 196 nipples for 6 months. In the distractor group (n = 168 nipples), there were 86 grade I nipples and 82 grade II nipples. In the control group (n = 152 nipples), there were 80 grade I nipples and 72 grade II nipples. The normal control group included 48 nipples. There were only 4 smokers, 1 in the normal control group and 3 in the distractor group. The BMI ranged from 19.2 to 27.3 (mean, 23.4).

**Nipple Height**

Table 1 shows the nipple height data. Grade I and II nipples achieved increased height after the distractor was worn for 6 months and at 37 weeks of pregnancy, while the control nipples achieved only a marginal improvement at 37 weeks of pregnancy.

**Tolerance**

At the time of operation, 25% of patients reported feeling unconformable and stated that the device was inconvenient, and after 2 months most patients indicated that they had become accustomed to wearing the device.

**Aesthetic Results**

Good aesthetic results, as evaluated by the surgeons, were achieved for 165 of 168 nipples in the distractor group (98%). Good aesthetic results as evaluated by the patients were achieved for 163 of 168 nipples in the distractor group (97%), all of whom were very satisfied with the outcome (Figures 3-9 show the preoperative and postoperative views of 7 patients). There was a questionnaire for the

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**Table 1. Comparison of Nipple Height Between the Distractor and Control Groups**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Height (mm)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Baseline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Distractor</td>
<td></td>
<td>Grade I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grade II</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>Grade I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grade II</td>
</tr>
<tr>
<td>Normal</td>
<td></td>
<td>8.2 ± 1.9</td>
</tr>
</tbody>
</table>

*a*P < 0.05 vs baseline
patients to evaluate the aesthetic result postoperatively. No patients were dissatisfied with the surgical outcome.

**Breastfeeding**

Table 2 shows the success of breastfeeding. In the distractor group, the success rates were 84.9% and 79.3% for grade I and II nipples, respectively. These rates were significantly higher ($P < 0.05$) compared with the control group (52.5% and 38.9% for grade I and II nipples, respectively).

**Complications**

After wearing the distractor for 6 months, nipples in the distractor group showed no complications such as skin numbness or nipple necrosis. Table 3 shows that the occurrence of chapped nipples and mastitis was higher in the control nipples than in the distractor nipples ($P < 0.05$). During the first week, the suture needed to be carefully monitored and the patient could not shower. A week later, patients could clean the device and suture every day after a shower. With careful care, no patients had an infection.

Figure 3. A 26-year-old woman in the distractor group. (A) Inverted nipple preoperative, (B) wearing the device for 2 months, and (C) nipples 14 months postoperative.
around the pin site. There was no report of milk through the wire sites. However, 2 patients underwent a fistula excision after the breastfeeding period ended.

**Recurrence**

Recurrent nipple inversion occurred in 5 grade II nipples 2 to 3 months after distractor removal. However, the shape and length had significantly improved compared with the preoperative appearance. The nipple could easily be pulled out manually and could maintain its projection without traction. The nipples had been converted from grade II to grade I. There were no complications such as depigmentation, sensory disturbance, or necrosis.

**DISCUSSION**

The presence of inverted nipples may affect the appearance of the breasts and breastfeeding, but traditional surgical procedures might injure the normal lactiferous ducts and damage the sensory functions. Therefore, the present study aimed to propose a minimally invasive and reliable method that preserves breastfeeding and corrects grade I and II inverted nipples. The results showed that the use of a distractor is a reliable and minimally invasive method for correcting grade I and II inverted nipples while preserving breastfeeding.

The etiologies of an inverted nipple include an insufficiency of supporting tissues, hypoplasia of the lactiferous ducts, and retraction. Patients suffering from inverted nipples may benefit from a minimally invasive approach that preserves lactation.
Figure 6. A 33-year-old woman in the distractor group. (A) Inverted nipple preoperative and (B) nipples 13 months postoperative.

Figure 7. A 28-year-old woman in distractor group. (A) Grade II inverted nipple preoperative, (B) wearing the device for 3 months, and (C) nipples 12 months postoperative.
nipples are categorized into 3 grades, as proposed by Han and Hong,\textsuperscript{6} depending on the severity of nipple inversion. In grade I, the nipple can easily be pulled out manually and maintain its projection without traction. The nipple is popped out by gentle digital pressure around the areola or by pinching the skin. It is believed to have minimal or no fibrosis. There is no soft tissue deficiency of the nipple. The lactiferous duct should be normal without any retraction. In grade II, the nipple can be pulled out manually, but not as easily as in grade I. The nipple has difficulty maintaining its position and tends to retract. Grade II nipples have a moderate degree of fibrosis. The lactiferous ducts are mildly retracted but do not need to be cut for the release of fibrosis. In grade III, the nipple is severely inverted and retracted. It is very difficult to pull out these nipples manually. Despite the application of pressure on the nipple to force protrusion, it promptly retracts. A traction suture is required to hold these nipples obtruded. The fibrosis is remarkable, and lactiferous ducts are short and severely pulled back. The amount of soft tissue is markedly insufficient in the nipple.

Various techniques can be used to achieve a satisfactory clinical outcome, including adequate inversion release, adequate nipple projection and shape, normal lactation function and sensation, minimal recurrence, and diminished scarring. The 4 major techniques are 1) continuous external eversion of the nipple; 2) release of the retracting lactiferous ducts and fibrous bands; 3) addition of supportive bulk at the nipple base; and 4) tightening of the nipple neck. These techniques are open surgical procedures that involve reshaping a new erect nipple and completely releasing the retracted tissue, such as the hypoplasia of the lactiferous ducts and fiber bundles, among others. They often have a negative impact on breastfeeding.\textsuperscript{10}

**Figure 8.** A 35-year-old woman in the distractor group. (A) Grade II inverted nipple preoperatively and (B) nipples 8 months postoperative.

**Figure 9.** A 25-year-old woman in the distractor group. (A) Grade II inverted nipple preoperative and (B) nipples 16 months postoperative.
A variety of tissues, including breast tissue, tendon, dermofat and dermal adipose flaps, laminated cartilage, and artificial materials (eg, polydioxanone, silicon, Teflon, PTFE), have been introduced into the nipple base to support protrusion.\textsuperscript{11–14} However, the placement of materials into the nipple base requires transection of the central part of the nipple and the main lactiferous ducts and parallel sensory fibers to create a small pocket for prosthesis implantation. Several complications have been reported, including difficulty breastfeeding, loss of nipple sensation, prosthesis extrusion or infection, and recurrence after graft resorption.\textsuperscript{15,16} The goal of tightening the nipple neck can be achieved by purse-string sutures or an internal 5-point star suture,\textsuperscript{15,16} Z-plasties of the skin at the nipple base,\textsuperscript{17} or triangular or rectangular excision of the nipple-areola skin,\textsuperscript{18,19} but long-term projection is usually not satisfactory. There are disadvantages, such as an obvious scar and easy torsion of the nipple shape during wound healing. In addition, it is difficult to balance the sufficient release of the fibrous bands and incidental injury to the main lactiferous ducts and parallel nerve branches.\textsuperscript{17,20} Furthermore, scarring of the dissection site at the nipple base is likely the major reason for early recurrence.

Stevens\textsuperscript{21} preserves the lactiferous ducts through anatomical dissection. This technique preserves breastfeeding. However, no patients in their study have been known to attempt breastfeeding after the procedure. At the time of the repair, 14 women were actively breastfeeding with their noninverted nipple, 22 had a medical comorbidity, and 5 were smokers.\textsuperscript{22} Importantly, some women in their study sought correction for aesthetic reasons, and they do not know if the women later became pregnant and were able to breastfeed. During follow-up visits, many patients reported breastfeeding postoperatively, but these data were not formally recorded.

To avoid these complications, a few minimally invasive and nonsurgical corrections of the inverted nipple have been advocated by some authors.\textsuperscript{23–27} All featured ideas include protecting the lactiferous ducts, thus maintaining the possibility of breastfeeding. Commonly used nonoperative measures are Hoffman exercises (nipple stretching exercises) and negative pressure evacuation (mainly syringe suction).\textsuperscript{23,24} Some scholars designed instruments for the correction, such as the “pineapple slice dressing,” breast ring, Nipplette (Avent\textsuperscript{®}), disposable syringe, and so on.\textsuperscript{23–27} Most of these instruments achieved satisfactory outcomes.

According to the theory of Ilizarov,\textsuperscript{28,29} continuous stress could stimulate and maintain tissue regeneration. Long et al\textsuperscript{30} and Mu et al\textsuperscript{30} used wires to supply continuous external eversion strength to the nipple and adjusted it each month, and Teng et al\textsuperscript{31} added springs on the wires to create a continuous stretch to the nipple. We made some modifications to their methods. Based on the idea of tissue expansion, compared with those mentioned above, we designed our instrument in a gradually adjustable manner, which sustains a continuous gentle distraction over the course of treatment. First, a 10-mL syringe instead of a 5-mL one was used for distraction. We observed that the narrow diameter of the syringe to the swelling nipple postoperatively increased the risk of nipple necrosis. Thus, a 10-mL syringe may be safer for various nipple sizes. Second, the pinholes were drilled at the base of the syringe; Mu’s technique\textsuperscript{30} used the top of the syringe instead of the bottom. Our techniques maintain a horizontal strength to distract the nipple and render the nipple’s surface more balanced and tender. Third, instead of using springs, we adjusted the wire by hand monthly, which is safer and more comfortable.

The goal of the continual distraction in this study is to achieve an aesthetically satisfactory projection without recurrence and to maintain the sensory and lactating functions of the nipple. The distracters we use can provide continual outside traction on hypoplastic lactiferous ducts and fibrous bands, similar to tissue expansion. Furthermore, the distracter stimulates active tissue regeneration and

<p>| Table 2. Success Rate of Breastfeeding at 4 Months in the Distractor and Control Groups |
|-----------------|--------|------------------|------------------|</p>
<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade I</td>
<td>86</td>
<td>84.9% (73 cases)</td>
</tr>
<tr>
<td>Grade II</td>
<td>82</td>
<td>79.3% (65 cases)</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade I</td>
<td>80</td>
<td>52.5% (42 cases)</td>
</tr>
<tr>
<td>Grade II</td>
<td>72</td>
<td>38.9% (28 cases)</td>
</tr>
<tr>
<td>Normal</td>
<td>48</td>
<td>89.6% (43 cases)</td>
</tr>
</tbody>
</table>

\textsuperscript{a}P < 0.05 vs controls

<p>| Table 3. Occurrence of Chapped Nipples and Mastitis in the Distractor and Control Groups |
|-----------------|--------|------------------|------------------|</p>
<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Chapped nipples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade I</td>
<td>86</td>
<td>17.4% (15)</td>
</tr>
<tr>
<td>Grade II</td>
<td>82</td>
<td>22.0% (18)</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade I</td>
<td>80</td>
<td>43.8% (35)</td>
</tr>
<tr>
<td>Grade II</td>
<td>72</td>
<td>47.2% (34)</td>
</tr>
<tr>
<td>Normal</td>
<td>48</td>
<td>16.7% (8)</td>
</tr>
</tbody>
</table>

\textsuperscript{a}P < 0.05 vs controls
allows granulation tissue to grow and support the nipples, with minimal injury to the nipple-areola complexes. This method will cause less damage to the lactiferous ducts, is easy to operate, and can preserve adequate blood supply. Nipple projection can be maintained with this robust technique. The tool is simple, inexpensive, and reliable. The effects of this particular procedure lasted for 6 months. After long-term gradual traction, the nipples were longer than normal, and we think the engorgement can be ignored at the end of the procedure.

Continuous external eversion of the nipple and release of the retracting lactiferous ducts and fibrous bands are necessary. The surgical techniques dig deeper beneath the nipple to allow most of the nipple tissue to float on the suture; the cutting force on local tissue is avoided, and horizontal strength is sustained to distract the nipple and apply more balanced and tender force to the nipple's surface. The most important thing is not to transect the central part of the nipple. Our results strongly suggest that our method outperformed the Hoffman method in all aspects, including the final nipple height at the late pregnancy stage, rates of breastfeeding for 4 months, and a low incidence rate of chapped nipples and mastitis in grade I and grade II patients. Moreover, our methods can achieve the results in that the corrected inverted nipples are largely comparable with the normal nipples, both in appearance and function.

When patients with unilateral or bilateral inverted nipples visit the Preconception Counseling Department of the Breast Surgery Clinic, we will recommend both an operation and a distraction device. Chinese patients are more conservative, and a gradual distraction may be perceived as safer than an operation, especially for preconception women. Most of the patients will choose the device over an operation.

According to our experience, over-retraction of the nipple to approximately 10% to 20% is indicated to maintain the usual height in most of our cases within 6 months. Thus, we suggest mobilizing the nipple at least 2 cm to 3 cm for complete release of tension to avoid early retraction of the raised nipple. The cotton-swab brush sensitivity test was done 3 and 6 months after surgery. Most patients reported a full return of nipple sensations within 2 weeks, and none reported long-term sensory disturbances. This study strongly suggests that wearing a nipple distracter is associated with increased rates of breastfeeding for 4 months in patients with grade I and grade II inverted nipples and reduced the incidences of mastitis and chapped nipples. In addition, the pullout length should be longer than the normal height, up to 2 mm to 3 mm, to avoid recurrence.

The distracter is made with disposable syringes, and the transparent chamber allows for inspection. Removal of the splint is achieved by cutting the steel wire when required. To avoid recurrence, it is important to sustain the tension for 6 months to gain consolidation until a certain overcorrection is achieved. This procedure has a relatively long treatment time, including the 6 postoperative months, compared with other surgical procedures. Furthermore, the external distracter on the nipple may result in a certain degree of inconvenience in daily life activities during treatment, for example, swimming, wearing evening dresses, or even engaging in sexual intercourse.

Contracture may occur due to preservation of the ducts and the surrounding fibrous tissue. There is a risk of recurrence, which may be accompanied by duct dysplasia, in which normal postpartum lactation may not be achieved. In the distractor group, 5 grade II nipples significantly improved to grade I, but only 1 was able to breastfeed.

Due to the limited funding of this study, psychological impacts of the correction of inverted nipples and the incidence of postpartum depression and mastitis could not be evaluated. In addition, the sample size was relatively small, and blinding could not be achieved. However, we believe that this study contributes to the treatment of inverted nipples based on our analysis.

CONCLUSIONS

The use of a distractor is a reliable and minimally invasive method for correcting grade I and II inverted nipples while preserving breastfeeding. Furthermore, our results reveal a satisfactory breastfeeding result with an easy-to-perform procedure and a minimal scar on the nipple. The technique is minimally invasive and reliable with low recurrence, and breastfeeding is preserved. It requires no special devices and conserves ductal function and nipple sensation, but this technique is time consuming. For patients with mild to moderate nipple inversion, wearing a nipple distractor may improve breastfeeding rates and reduce the incidence of postpartum mastitis.

Disclosures

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REFERENCES


