



## Ideas and Innovations

### The "Niplette": an instrument for the non-surgical correction of inverted nipples

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**SUMMARY.** Inverted and non-protractile nipples are a common problem which cause psychological distress and interfere with a woman's ability to breast feed. A new instrument, the "Niplette", readily corrects the defect without the need for surgery. It is cheap and all patients found it comfortable and easy to use. Breast feeding is possible after treatment. The device should replace surgery in medical practice for this common condition.

Inverted or non-protractile nipples are a common problem affecting up to 10% of the female population.<sup>1</sup> As well as causing psychological distress, inverted nipples interfere with a woman's ability to breast feed.<sup>2-4</sup> A majority of women are not able to breast feed successfully.

The anatomical fault lies with short lactiferous ducts which tether the nipple and prevent it projecting. To date, the mainstay of treatment has been surgery under general anaesthetic. This usually requires sectioning of the lactiferous ducts. Although providing a cosmetic correction this does, of course, destroy the breast function. Many operative procedures have been described.<sup>5</sup> The numbers are testament to the fact that none is ideal and all have their failures.

Non-operative measures in the form of Hoffman Exercises,<sup>6</sup> and Woolwich Breast Shields,<sup>7</sup> have been advocated to enable breast feeding. Recent studies, however, have cast doubt on their usefulness.<sup>4</sup> Woolwich Shields, in fact, may reduce the chances of successful breast feeding.

This study assesses the results from using a new instrument for the non-surgical correction of inverted nipples: the "Niplette".

#### Instrument and subjects

The "Niplette"\* uses suction to stretch the lactiferous ducts gently in a manner analogous to tissue expansion. It is a simple device which incorporates a transparent nipple mould with a sealing flange attached to a valve and syringe port (Fig. 1). With the mould held on the breast over the nipple areola complex, air is withdrawn using a 5 ml syringe and the

inverted nipple sucked up into it. The pull is controlled by the patients, but they are instructed to pull on the nipple as firmly as is comfortable. Initial usage is encouraged as much as possible both day and night. If necessary, a small smear of Vaseline around the base will improve the seal.

Once the nipple has pulled out to fill the mould, usage is reduced at a rate dependent upon any tendency to retract.

Sixteen consecutive patients referred to the Regional Plastic Surgery Centre at Roehampton for consider-



Fig. 1

**Figure 1**—The "Niplette"—for the non-surgical correction of inverted nipples.

\* The Niplette can be obtained from any reliable chemist including Boots. The retail price is £14.50 in Boots. One instrument is required for each inverted nipple. It is manufactured by Cannon Babysafe, Lower Road, Glemsford, Suffolk CO10 7QS.

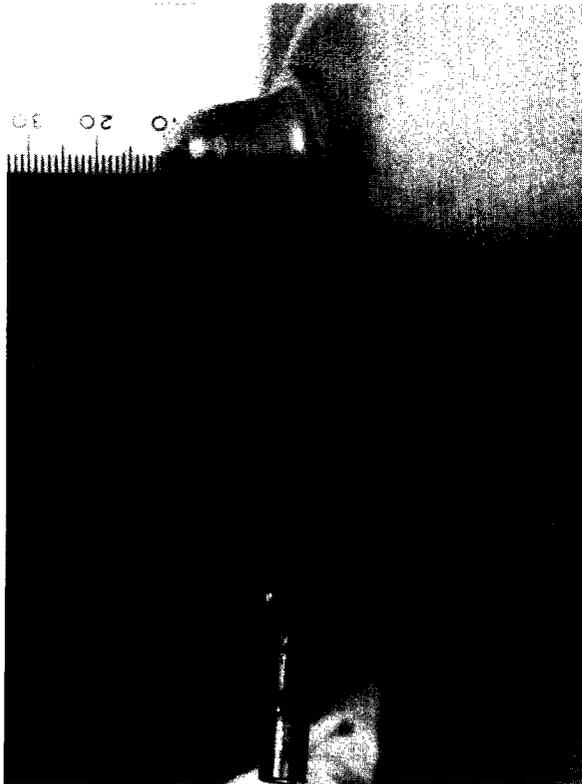


Fig. 2

Figure 2—With regular use the nipple readily fills the mould. Patients can then be weaned off use.

ation of surgical treatment of their inverted nipples were fitted with the "Niplette" (age range 19-44, mean 30 years). Two of them had failed surgical corrections carried out previously. In addition, six pregnant women were referred from the ante-natal clinics because of their nipple inversion. They wished

to breast feed and did not want surgery. (Eight additional pregnant women have been treated since the original of this manuscript was submitted).

All patients would have required duct division to achieve a surgical correction.

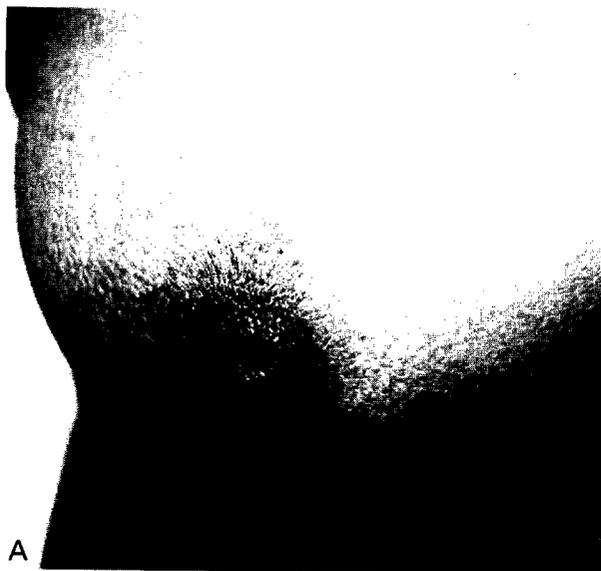
**Results**

All patients found the "Niplette" easy to apply and use. The length of time worn by them varied according to their lifestyles: no accurate records were kept. Office workers and those who required thin clothing could not use the device during working hours. Usage was easily concealed under loose clothing by the remainder. Most women managed to wear the instrument during sleep. It did come off, however, if they rolled onto their front. All patients were able to expose their nipples from the inverted position immediately. Outpatient review was monthly until complete sustained correction and then by telephone to confirm maintenance of correction.

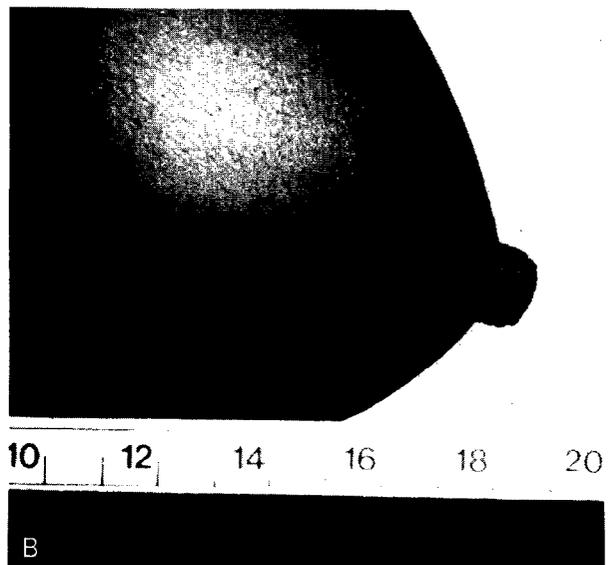
Eighteen of the twenty-two patients were able to pull their nipples out to fill the mould by the first follow-up appointment (Fig. 2). The rate was dependent upon the degree of deformity and the amount of usage. At best the nipple filled the mould within 2 days (Fig. 3).

One patient was lost to further follow-up after an initially promising result. Of the remaining 21, 2 had discontinued use having achieved correction with no subsequent retraction by the first follow-up appointment. A further 4 were able to stop using the instrument by 2 months and 13 by 3 months. One continues to use the evertor intermittently despite a very acceptable result (Fig. 4). Although erecting spontaneously, her nipples are flat when flaccid.

The fourteen patients who were pregnant have now delivered. All are breast feeding without difficulty. Six



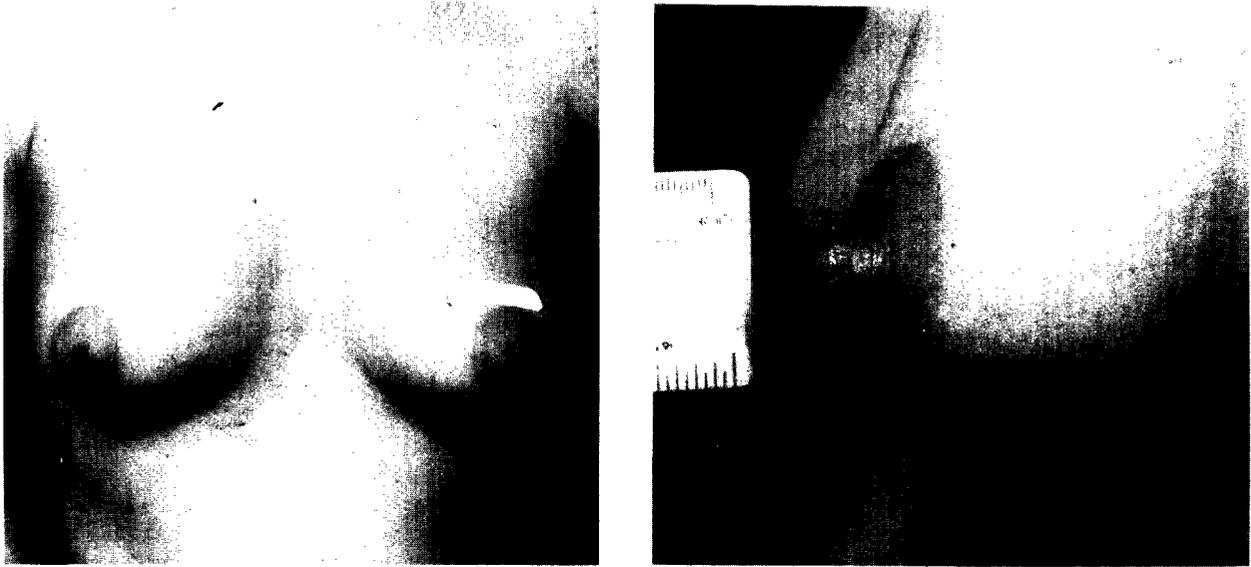
A



B

Fig. 3

Figure 3—(A) Patient pre-treatment with a deeply inverted nipple. (B) Sustained correction after using the "Niplette" for two weeks. (No further use was required).



**Fig. 4**

**Figure 4**—(A) Patient pre-treatment with bilateral deeply inverted nipples. (B) Final result with very natural erect nipples.



**Fig. 5**

**Figure 5**—(A) Deeply inverted nipples pre-treatment. (B, C) Result at 2 months whilst weaning off treatment. (B) Frontal view, (C) Lateral view.

of these women could not breast feed earlier children because of their nipple inversion.

### Complications

If too great a force were applied to the nipple, it could be painful. This was easily overcome by reducing the suction. Patients were instructed to pull only as hard as comfortable.

Two patients had slight bleeding from their nipples. One with deeply inverted nipples pulled too hard initially (Fig. 5). This single incident did not recur with lower suction. Another fitted late in pregnancy experienced occasional minor bleeding. For both patients it was no more than a nuisance. The "Niplettes" are washable.

### Comment

The "Niplette" non-surgically corrects inverted nipples in a manner analogous to tissue expansion. Gentle suction, controlled by the patient, stretches the short lactiferous ducts. The mould is longer than a nipple to overcome the elasticity of the ducts. The intrinsic nipple muscle is unaffected and normal nipple erection occurs after treatment. This muscle pull is probably the factor which maintains the correction long term.

To date the device has been entirely successful. It is simple to use, patient compliance is excellent and most importantly breast function is not altered, thereby allowing breast feeding. Correction is achieved in all inverted nipples including those deeply inverted. It is to be hoped that use of this simple instrument will replace surgery in medical practice.

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### References

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