Functional and Aesthetic Labia Minora Reduction

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Enlarged or hypertrophic labia minora can be functionally or psychosocially bothersome. Local irritation, problems of personal hygiene during menses or after bowel movements, interference with sexual intercourse, and discomfort during cycling, walking, or sitting are generally accepted as indications for surgical reduction.1-5 Concerns about the appearance of labia minora extending beyond the labia majora can often be alleviated by explaining that variation in size is normal.4 Still, labial reduction should be considered for cases in which such aesthetic concerns influence the psychological and social well-being of the patient.3,7

Labium minus reduction is usually performed by simple and straight amputation of the protuberant segment and oversewing the edge.1-6,4 With this technique, the labial edge is replaced by a fragile and stiff suture line that is too often associated with local irritation and even discomfort while walking.2 Moreover, because linear scars tend to contract, the posterior fourchette may be advanced, resulting in partial obliteration of the vaginal introitus. To prevent such an unfavorable outcome, we modified this technique by performing a running W-shaped resection with interdigitated suturing of the protuberant labium. This results in a natural, softer, and more rounded labial edge. Our experience in 13 cases is presented and discussed.

METHOD

Patients are admitted on the day of the operation. A single intravenous dose of 1500 mg of cefazolin and 500 mg of metronidazole is administered before the operation. The operation is performed with the patient under general or regional anesthesia and in the lithotomy position (Fig. 1). A running W-shaped resection is marked on the medial aspect of each labium minus (Fig. 2, above). Care should be taken not to extend the incision into the frenulum at the base of the clitoris, and no part of the prepuce or its dorsal hood is to be resected.3 Likewise, the incision does not extend dorsally into the posterior fourchette, because the resulting scar may interfere with sexual intercourse.3,7 Asymmetry is not uncommon and may be corrected by individually modified resection. Usually, the length of the labia is kept to a minimum of 1 cm to allow the minor labia to slightly protrude to the level of the major labia. This way, the urethral orifice will not be distorted by possible overresection.3 The desired length of the labia minora, however, should be discussed extensively with the patient before the operation because she is likely to have a clear idea of what she wants.

After the medial aspect is marked, the lateral aspect of each labium minus is marked in a complementary manner (Figs. 2, below, and 3). The labia are injected with 1% lidocaine and adrenaline (1:200,000) to increase the virtual subcutaneous space between the lateral and

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TABLE I
Activities Complicated by Hypertrophic Labia Minora in 13 Patients Who Underwent Labia Minora Reduction*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal hygiene</td>
<td>2</td>
</tr>
<tr>
<td>Sitting</td>
<td>2</td>
</tr>
<tr>
<td>Walking</td>
<td>4</td>
</tr>
<tr>
<td>Cycling</td>
<td>8</td>
</tr>
<tr>
<td>Sexual intercourse, dyspareunia</td>
<td>8</td>
</tr>
<tr>
<td>Self-esteem, aesthetic concerns</td>
<td>9</td>
</tr>
</tbody>
</table>

* Most patients reported a problem with more than one activity.

Fig. 1. Preoperative view of hypertrophic labia minora in a 19-year-old patient.

Fig. 2. (Above) A running W-shaped incision is marked on the medial aspect of each labium minus. Ventrally, it does not extend beyond the base of the frenulum. Dorsally, the incision does not extend into the posterior fourchette. (Below) After the medial aspect is marked, the lateral aspect of each labium minus is marked in a complementary manner.

Fig. 3. Diagram of the incision. The uninterrupted line indicates the marking of the running W-shaped incision on the medial aspect, and the interrupted line indicates the complementary marking on the lateral aspect of each labium minus.

The first postoperative day. Follow-up ranged from 2 months to 6 years and continues for some patients.

Results
The postoperative period was uneventful in 11 patients. The first patient of this series had...
a small hematoma in the anterior portion of the right labium minus that drained spontaneously. In the third patient, one of the sutures in the left labium gave way. Healing by secondary intention of this minor dehiscence resulted in unrestricted function and satisfactory appearance. All patients had minimal postoperative discomfort and, 2 weeks after surgery, reported no pain. Swelling subsided within 4 weeks. By that time, all patients were pleased with the appearance of their genitalia and the resolution of their original problems (Fig. 6). None of them reported any remaining discomfort during sexual intercourse.

DISCUSSION AND CONCLUSIONS

Enlargement of the labia minora has been recognized as a normal variant for many years. The enlargement is most often congenital but may also be caused by exposure to exogenous androgens in infancy, persistent manual stretching or weight attachment, and recurrent dermatitis secondary to urinary incontinence. Usually, both labia are diffusely elongated from the clitoral hood to the posterior fourchette, but the hypertrophy may also be restricted to one labium. Although Friedrich suggested that a normal labium minus measures less than 5 cm when under slight

Fig. 5. (Left) After resection of the surplus tissue and extensive hemostasis, the thin tissues of the labia minora are reaproximated in an interdigitated manner by using interrupted Monocryl 5-0 sutures. (Right) Diagram of closure.
traction, most patients have their own idea of what constitutes normal function and appearance. Reduction of the labia minora may improve psychosocial and physical comfort and sexuality in some women.

Simple amputation of the protuberant segment of the hypertrophic labium will result in the labial edge being replaced by a stiff and fragile suture line that is too often associated with local irritation and even anterior retraction of the posterior fourchette. Too much traction during the procedure will result in overzealous resection and complete loss of the medial part of the labium. Furthermore, Alter found that the soft, contoured, darkly pigmented labial border was replaced by a thin, irregular suture line and advocated excising a wedge of protuberant labial tissue. However, unless additional longitudinal extensions or Z-plasties are incorporated, this technique results in a straight and uninterrupted scar running from the base of the labium to its edge. Such scars may distort the remaining labia. Moreover, the more lightly colored anterior labial edge meets sharply with the darker pigmented posterior labial edge when the wedge is approximated. When the reduction is overzealous, this wedge may easily become dehiscent, necessitating secondary correction.

The zigzag technique described here leaves no continuous scar at the labial edge and prevents transverse or longitudinal scar contraction because the scar runs obliquely from the medial to the lateral aspect of the labia minora and vice versa. Because no interrupted sutures are placed at the edge of the labium, this edge will turn out regular. The technique restores the natural rounded contour of the edge of the labia minora. Although the darker pigmentation of the labial edge is lost, the anteroposterior color change is gradual and appears natural. Because of our positive experience in 13 cases, we recommend this technique for labia minora reduction.

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REFERENCES