Surgical reduction of hypertrophy of the labia minora

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ABSTRACT

Objective: To evaluate postoperative satisfaction, including improvements in quality of life, among patients who had undergone labiaplasty reduction. Methods: In a retrospective descriptive study, women who had undergone labiaplasty for hypertrophy of the labia minora between January 2005 and December 2009 were contacted by telephone. The women were asked to answer a satisfaction survey evaluating the aesthetic and functional results of the surgery. Results: Among 21 patients who had labiaplasty using either a pedicle flap reconstruction (n = 18, 86%) or a myomectomy technique (n = 3, 14%), 18 (86%) were contacted successfully and took part in the survey. All of the contacted patients were satisfied with the overall outcome of the surgery, with a mean rating of 8.7 out of 10 at a median follow-up of 17 months (interquartile range 6–25 months). From an esthetic point of view, 18 patients reported an improvement in comfort with respect to any form of original functional discomfort. Concerning sexuality, 95% of the sexually active patients had originally described some form of physical or psychologic discomfort, and all of them reported total disappearance of this symptomatology. Conclusion: Labiaplasty provided overall satisfaction in terms of improvements in patient quality of life and sexuality.

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1. Introduction

The labia minora are 2 mucocutaneous folds situated between the labia majora. There is no internationally recognized definition for hypertrophy of the labia minora. Hypertrophy resulting from various, mainly congenital factors, can be unilateral or bilateral [1].

Such hypertrophy can be the source of incapacitating discomfort and may lead the patient to request a surgical operation involving labiaplasty—that is, surgical reduction of the labia minora. Although labiaplasty is frequently carried out, there are few data relating to the aesthetic and functional results of this surgical technique [2,3].

The aim of the present study was thus to evaluate the degree of satisfaction and the improvements in quality of life—in particular, those related to sexuality—among patients who had undergone reductive labiaplasty.

2. Materials and methods

The present study was a retrospective, descriptive (continuous series) analysis of outcome among patients who had undergone labiaplasty in the Obstetrics-Gynecology and Reproductive Medicine Department, Paris-Sud University, Paris, France between January 1st 2005 and December 31st 2009. Authorization for the study was granted by the Paris Île-de-France X Institutional Review Board.

From hospital records, 21 women who had undergone labiaplasty were identified. The records did not retain a strict definition of hypertrophy of the labia minora; the indication for surgery had been based on the functional or esthetic discomfort felt by the patient.

The patients were contacted by telephone at a median follow-up of 17 months (interquartile range [IQR] 6–25 months), and asked whether they would agree to answer a satisfaction survey concerning the surgical treatment that they had received. If they agreed, a prospectus concerning the modalities and aims of the study was posted to them. In parallel, a telephone appointment was arranged at their convenience for the purpose of completing the survey. All of the patients gave consent to participate in the study.

The survey evaluated the patient's overall satisfaction after the operation, and more specifically their satisfaction in terms of the aesthetic, functional and sexual outcome. Each of these items was assessed via a visual analog scale (VAS) from 0 to 10.

The results are given as a mean or median value and the IQR (25th–75th percentile). Non-parametric Fisher's exact test was used to compare categoric variables. Non-parametric Wilcoxon signed-rank test was used to compare numeric variables. The significance level was set at P<0.05.

3. Results

Between January 1, 2005, and December 31, 2009, 21 patients were recorded to have undergone labiaplasty in the Obstetrics-
Gynecology and Reproductive Medicine Department, Paris-Sud University, Paris. The mean age of the patients was 29 years (range 15–52 years). Of these, 5 (24%) were younger than 18 years. All of the patients had sought consultation as the result of an incapacitating discomfort related to hypertrophy of the labia minora, leading to a request for surgical treatment. Among those patients who were sexually active (n = 21), 95% expressed some form of discomfort during sexual intercourse. In addition, 81% of the patients reported discomfort when wearing close-fitting clothes. Esthetic discomfort was expressed by 86% of the patients and hygiene difficulties by 19%. Last, 38% of the patients described discomfort during sports activities.

Labiaplasty with pedicle flap reconstruction (Fig. 1) was carried out in 18 (86%) women, 3 of whom underwent unilateral-plasty. Three patients (14%) underwent a "linear" subtotal labiectomy as a consequence of the anatomy of their labia minora. The median duration of the operation was 40 minutes (IQR 30–50 minutes). All of the patients were seen by their surgeon after a period of 15–60 days for a postoperative consultation. At this consultation, 3 patients (14%) had partial splitting of the healing scar. Of these, 1 woman required recovery surgery, which had a favorable secondary outcome. For the other 2 patients, controlled healing was sufficient. The outcome was judged to be anatomically satisfactory in 90% of the patients. One patient presented with a persistent unilateral excess, with no symptomatic effects.

The median duration of postoperative pain reported by the patients was 7.25 days (IQR 5.5–8.5 days). In all women, this pain was relieved by the use of class 1 analgesics.

Eighteen (86%) of the patients could be contacted by telephone at a median follow-up of 17 months (IQR6–25 months). All of the contacted patients agreed to take part in the study and to answer the survey sent to them. All 18 reported overall satisfaction with the outcome (Table 1) with a mean rating of 8.7 on a scale ranging from 0 to 10 (0, totally unsatisfied; 10, highly satisfied), and a median satisfaction equal to 9 (IQR 8–9). All but 1 patient considered the outcome to be esthetically satisfactory, with a mean rating of 8.1 and a median satisfaction of 8.5 (IQR 8–9). Only 1 patient reported an esthetic outcome that was not in line with her expectations, although overall she was satisfied with the operation and reported an improvement in the original symptoms.

All of the patients who had originally experienced discomfort reported an improvement in comfort when wearing close-fitting clothes. Similarly, all of the patients reported an improvement in their sexuality and the disappearance of discomfort resulting from hypertrophy of the labia minora. All of the patients stated that they would be prepared to undergo the same surgery again and would recommend it to a friend with the same problem. Last, without having being asked in the survey, the patients spontaneously expressed their reluctance to request surgical treatment, thus often delaying their consultation despite discomfort that had sometimes been present for many years.

4. Discussion

The present study confirms good clinical outcomes at medium term follow-up for labiaplasty: all of the contacted patients were satisfied with the overall outcome of the surgery, with a mean rating of 8.7 at a median follow-up of 17 months.

All of the patients had been referred as a consequence of esthetic and/or secondary functional discomfort resulting from hypertrophy of the labia minora. There seems to be a correlation between the degree of hypertrophy and the incidence of resulting discomfort [4].

It is the excessive protrusion of hypertrophied labia minora outside the vulvar vestibule—perceived as disgraceful by the patients—which constitutes the most frequently reported motivation for consultation [5]. Studies indicate that 85–100% of patients are esthetically embarrassed by hypertrophy of their labia minora [3–6], a percentage that is comparable to the results of the present study (86%). This psychologic discomfort can become a real complex that affects the patient's love and sex life. In most studies [3–8], as in the present study, other symptoms reported by the patients include discomfort when wearing close-fitting clothes or during sports activities (Table 2).

With regard to sexuality, none of the patients in the present study reported postoperative functional disorders during sexual intercourse. All reported not only complete regression of the physical discomfort resulting from hypertrophy, but also disappearance of the associated secondary complexes, which can be particularly inhibiting during intimacy.

Although, with the exception of specific situations, it may seem justified to wait for the age of majority before carrying out labiaplasty, in many cases this operation has been performed for patients younger than 18 years. In the present study, the mean age of the patients at the time of

Table 1
Population characteristics: comparison between highly satisfied patients and unsatisfied patients.*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Highly satisfied patients</th>
<th>Unsatisfied patients</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>VAS = 8 (n = 16)</td>
<td>VAS = 8 (n = 2)</td>
<td>0.12</td>
</tr>
<tr>
<td>Uniquely functional</td>
<td>25 (17–35)</td>
<td>44</td>
<td>0.12</td>
</tr>
<tr>
<td>indication</td>
<td>4 (25)</td>
<td>0 (0)</td>
<td>1.00</td>
</tr>
<tr>
<td>Functional and esthetic</td>
<td>12 (75)</td>
<td>2 (100)</td>
<td>1.00</td>
</tr>
<tr>
<td>indication</td>
<td>Postoperative</td>
<td>2 (12)</td>
<td>1.16</td>
</tr>
<tr>
<td>complications</td>
<td>2 (12)</td>
<td>1 (50)</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Abbreviation: VAS, visual analog scale.

* Values are given as median (interquartile range) or number (percentage) unless stated otherwise.
surgery was 29 years and 5 (24%) of the women were younger than 18 years. In each of these 5 cases, a 1-to-1 consultation was held with the young woman to verify her motivations, and authorization for surgery was obtained. Among this subgroup, an overall satisfaction rate of 100% was reported at a median follow-up of 16 months (IQR 10–19 months). These 5 patients originally reported discomfort mainly during sports activities and when wearing close-fitting clothes, and postoperatively reported total disappearance of the symptoms. In the largest previous study, 9% of patients were aged between 13 and 19 years [6]. As in the present study, those patients did not report more complications or poorer results than older women.

To our knowledge, no study has compared the different surgical techniques, such as total labioplasty, laser labioplasty, "linear" subtotal labioplasty, V-wedge resection labioplasty, and labioplasty with superior pedicle flap reconstruction [3–13]. However, labioplasty with superior pedicle flap reconstruction is supposed to procure a better esthetic result by preserving the pigmented, free edge of the labia minora. In addition, labioplasty techniques involving simple linear resection cause the scar to form along the full length of the zone in contact with underwear, which increases the risk of poor healing and dyspareunia [10]. The decision about which type of surgery (flap reconstruction or linear subtotal symploctomy) to use depends on the characteristics of the malformation: linear symploctomy is sometimes preferred when the hypertrophy is localized. In the present study, no significant difference in outcome was found between flap reconstruction and linear subtotal symploctomy, although the sample size was too small to support any conclusion.

Complications after labioplasty can include postoperative pain, dyspareunia, delayed healing, scar splitting, flap necrosis, hematoma, infection, or the need for a repeat operation. The rate of scar splitting has been reported as 7% [3,6], and in most cases has a favorable outcome after controlled healing. The incidence of hematoma has been reported to be between 4% and 7% [7,12,14], whereas that of necrosis and infections is very rare. Concerning postoperative pain, this has been previously reported by patients to last a median duration of 7 days and to be relieved by class 1 analgesics [3], corresponding to the data obtained in the present study.

Patient satisfaction is close to 90% in most studies (Table 3). In the study of Rouzier et al. [3], however, 8% of the patients found the final result to be exaggerated and 4% considered it to be insufficient, although the surgeon’s evaluation of the outcomes was “anatomically satisfying”. Despite anatomically satisfying corrections, as many as 4% of patients in 1 study have reported the absence of any improvement in functional terms [3].

In the study of Alter et al. [13], undesirable effects were reported in terms of sexuality, including difficulties in reaching an orgasm for 3% and a decrease in sensitivity for 2% of patients. In addition, intromission dyspareunia was reported despite the use of techniques that preserve the posterior vaginal wall. In the present study, we found no negative effects associated with labioplasty, either in functional terms or concerning the patients’ sexuality. This finding could be explained, however, by the low number of participants in the study. Indeed, in the larger study a non-negligible number of patients were unsatisfied in terms of the esthetic or functional outcome [3]. Patient satisfaction in the present series is similar to that of previous studies. This indicates that the surgical technique used is associated with good reproducible results. Although it is generally associated with satisfying results, this type of surgery has a non-negligible risk of postoperative complications, patient dissatisfaction, and sexual disorders. Thus, we consider—in view of the results found in the present and previous studies—that it is necessary to observe a waiting period between consultation and surgery and to provide the patients with as much information as possible.

Lastly, another finding of the present study is the difficulty that patients experienced in seeking consultation for this “pathology”. This can be seen by the advanced average age (29 years) at which the operation was carried out, even though the patients generally reported having experienced discomfort since adolescence. Interestingly, the patients were able to discuss the “taboo” aspects of hypertrophy of the labia minora, and the difficulties that they experienced in expressing...
their embarrassment, even though they related to their sex life in particular. More specific information should be provided to the patient during the initial gynecologic survey.

Hypertrophy of the labia minora can lead to functional, esthetic and sexual discomfort. Labiaplasty was found to be associated with good improvements in patient quality of life and sexuality, and a high degree of patient satisfaction. Nevertheless, it is necessary to provide the patient with well-informed preoperative advice for this type of functional surgery.

Conflict of interest

The authors have no conflicts of interest.

References