

Genital Labiaplasty with Erbium Laser as an “Office Procedure”

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ABSTRACT

Objective: In this study, we analyzed labiaplasties performed with a 2940-nm erbium laser under local anesthesia as an "office procedure" performed in the Baren Clinic.

Methods: We conducted a descriptive, prospective study of labiaplasties performed using erbium laser surgery between the years 2014 and 2015.

Results: The most frequent indication for intervention was aesthetics, which occurred in 93.3% of cases. This outpatient procedure was performed "in office" with a duration of less than 45 minutes in all cases. No pain or major complications were reported. The results were satisfactory in 93% of patients.

Conclusion: Hypertrophy of the labia minora is a condition that can be treated using an erbium laser under local anesthesia as an outpatient "office procedure" that is rapid, painless, safe and associated with a high rate of satisfaction.

Key words: labiaplasty; laser labiaplasty; outpatient office procedure.

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I. INTRODUCTION

The use of lasers in daily gynecological medicine has become widespread [1]. A series of outpatient procedures involving lasers has been described for the treatment of different conditions, including stress urinary incontinence and genitourinary syndrome of menopause [2]. Therefore, the acquisition of a 2940-nm erbium laser device at the Baren Clinic has allowed us to increase our product offerings. In-office procedures requiring the use of an erbium laser under local anesthesia are now possible in our center.

II. MATERIALS AND METHODS

A descriptive, prospective study was conducted on labiaplasties performed as an office procedure in the Baren Clinic since the acquisition of a 2940-nm erbium laser apparatus in December 2013. During 2014 and 2015, a total of 240 office procedures using an erbium laser under local anesthesia were performed, fifteen of which were labiaplasties. All procedures were performed by the same doctor, an expert surgeon, and were assisted by the same staff. All patients were evaluated by the same surgeon prior to the intervention (see Figure 1). An appropriate assessment was performed along with assessments of pre- and post-intervention recommendations (Tables 1 and 2). All patients signed informed consent statements prior to surgery.



Fig. 1: Labia minora hypertrophy. Prior exploration.

Table 1. Recommendations prior to "in office" labiaplasty.

<p>Careful genital shaving one week before surgery. Topical application of EMLA one hour before the procedure. Alprazolam (1 mg) was taken 30 minutes before the procedure.</p>

Surgical preparation: The patient was placed in a dorsal lithotomy position. After proper asepsis with 2% aqueous chlorhexidine, the labia minora was marked with a Devon® surgical marker at the points where laser incisions would be made. The upper marking was placed 1-1.5 cm from the clitoral hood and extended downward in a curve to preserve the natural curvature of the labia minora. The marked labium was joined with the contralateral labium in a manner that generated the greatest possible symmetry. Anesthesia of the marked area was performed with injectable 1% lidocaine solution using a Sterican® 30-G needle. Next,

a curved Bioaccess® vascular clamp was placed along the previously marked area, which allowed us to dissect the labia in a short period of time and reduce the potential for bleeding after excision (see Figure 2).

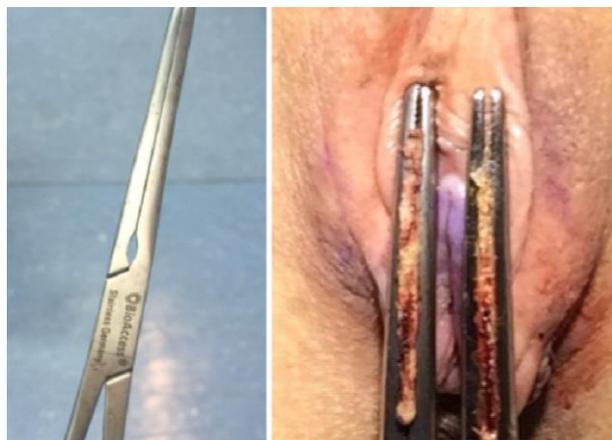


Fig. 2: Vascular clamps

Laser Equipment: All procedures were performed using the same piece of equipment, a FotonaSmooth XS® model from Fotona®, Slovenia. The R08-Ti surgical handpiece was used in MicroShort Pulse (MSP) mode at 50 Hz and 120 mJ.

Surgical technique: A moist 4x4 cm piece of surgical gauze was placed behind the labia minora to protect the remaining tissue from excessive heat. The handpiece of the activated laser device was placed perpendicular to the labia minora, and the excess labial tissue was resected continuously from top to bottom following the marks previously made in a manner against the contour of the vascular clamp. The clip was not withdrawn immediately after excision. The same process was followed for the contralateral labium. After dissecting both labia with the laser, the vascular clamps were opened and careful hemostasis was performed as necessary.

Suture technique: After referencing the lower end of the labium, the incisions were sutured continuously using intradermal polyglactin Vicryl® 4-0. Reinforcement stitches were placed as necessary (see Figure 3).



Fig. 3: Immediate post-surgical result

After finishing the suture and verifying hemostasis, the patient was observed for 60 minutes in our center, after which the patient was discharged with a list of post-surgery recommendations (Table 2). The patients were scheduled for follow-up at 10, 30, 60 and 90 days after surgery to identify possible complications, to assess the aesthetic result and to assess the degree of patient satisfaction.

Table 2. Recommendations after "in office" labiaplasty.

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| <ul style="list-style-type: none"> ✓ House rest for 48 hours. ✓ Relative rest for 7 days. ✓ Keep genital area dry. ✓ No smoking. ✓ No sexual relations until the next follow-up. ✓ No use of tight-fitting underwear. ✓ Avoid immersion baths until the next follow-up. ✓ Avoid pressure on the genital area. Use a floating seat. ✓ Take antibiotics. Amoxicillin plus clavulanic acid (875/125 mg) should be taken 3 times a day for seven consecutive days. ✓ Take anti-inflammatories for pain. One dose of Enantyum (25 mg) should be taken as needed up to 3 times a day for 3 days. ✓ Follow up appointments in one, two and four weeks. |
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III. RESULTS

The age range of the patients was 35 to 52 years; requests by patients under 18 years of age were not accepted. Indications for the procedure were aesthetic (93.3%, n=14) and functional (6.6%, n= 1); other indications were not considered. Due to the characteristics of the "in office" procedure, all cases were single interventions with no other combinatory procedures. In all cases, the same protocols were followed for preparation, anesthesia and surgical technique. In all 15 cases, the procedure was conducted in its entirety in less than 45 minutes. We observed no complications during the surgical process. Similarly, we observed no major bleeding during the procedure. In two cases (13%), reinforcing stitches were required. Based on its relatively quick nature, procedure-associated pain was controlled without major difficulties. In only one case, the patient described the procedure as uncomfortable or painful. All patients were in sufficiently good condition for discharge 60 minutes after the procedure and were given the previously specified recommendations. One patient required "retouching" because she was not completely satisfied with the result. In the other 14 patients (93%),

this was not necessary. We did not observe any cases of wound dehiscence. All patients reported feeling very comfortable with the functional outcome and did not experience later discomfort. We encountered no cases of discontent with the procedure (see Figure 4).



Fig. 4: Result two months post-treatment

IV. DISCUSSION

Over the past 20 years, we have seen a rise in the use of cosmetic or aesthetic gynecology. Combined with the increased use of lasers in gynecology, new procedures have been developed for the treatment of various conditions. In our center, the purchase of a 2940-nm erbium laser has allowed the implementation of novel approaches for treating conditions such as condylomata, intraepithelial lesions, lichen sclerosis, urinary incontinence or genital atrophy. This laser has also allowed the introduction of new treatments, including the treatment of striae or chloasma gravidarum. One novel treatment we can now offer is laser-assisted labiaplasty. These treatments can now be performed as "office procedures" under local anesthesia, which differs from protocols previously performed in the operating room requiring hospital admission. Most of the publications on labiaplasty reduction analyze surgical procedures performed in the operating room [3-5]. Moreover, most of these studies have focused on labia hypertrophy in adolescents that produce functional or aesthetic problems [3]. In our experience, based on the profile of our clientele and because we only analyzed 15 cases, all of the patients in our analysis were adults between 35 and 52 years of age, and the main surgical indication was aesthetic (93%). Other authors found that women generally undergo labiaplasty for aesthetic reasons, but patients also cite functional and/or psychological reasons, often in combination [4,6,7]. Different labiaplasty techniques have been described [4] based on the use of scalpels, scissors, lasers and electroscalpels. The cut lines in labiaplasties can vary from "Z" labiaplasties to lateral or

triangular resections. No randomized studies have been conducted to demonstrate the advantages of an instrument or surgical technique [4]. While the efficacy of 2940-nm erbium laser labiaplasty has been described [7], this technique is not usually performed in an "in office" setting but is instead performed in the operating room. Because this was conducted as an "in office" procedure in our center, we chose a linear resection pattern of the labia following the line demarcated with a previously applied vascular clamp. This technique allowed the procedure to be performed in a very short time with minimal bleeding, no significant pain and high satisfaction for most patients. All of our patients could be discharged when the procedure was completed, and the patients returned to normal activities in a short period of time, between 7-10 days. Other authors [8] have reported that properly indicated labiaplasty provides excellent results, with improvement in self-esteem and minimal local discomfort and no negative effects on orgasm. We did not observe any type of discomfort after the technique was performed.

V. CONCLUSIONS

In our experience, hypertrophy of the labia minora can be corrected on an outpatient basis without hospital admission. This procedure was conducted safely as an "office procedure" with no major complications, good aesthetic results and a high rate of patient satisfaction.

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