

# Exision versus cure for aberrant nymphs

## Summary

**Introduction:** The labia majora border the vestibule and are about 3 mm thick. Mucous in appearance, they tend to atrophy after the menopause. In adults, they often protrude beyond the vulval slit (50%). However, in some cases, they extend beyond the labia majora without any prior action having been taken.

**Case report:** The case we report concerns a 21-year-old, single, non-virgin woman who consulted for discomfort when walking and wearing tight clothing such as pants. She reported no discomfort during intercourse as reported in the literature. Examination revealed a slightly edematous vulva and nymphs protruding 2.5 cm beyond the labia majora. After unsuccessful clothing advice, the final treatment proposed was a reduction of the labia minora. A preoperative work-up based on rhesus blood grouping, haemogram, prothrombin level, cephalin-Kaolin time, creatininaemia and fasting glycaemia, all of which came back normal, enabled the labia minora to be reduced according to the patient's wishes, with an incision leaving a roughly triangular area. The post-operative course was straightforward, with normal healing times. The patient was able to resume her activities and wear tight pants without pain three months after the operation.

**Conclusion:** The difficulties caused by exuberant labia minora are a reality. In our Senegalese context, talking about sex is taboo, which makes it a rare reason for consultation.

**Keywords:** labia minora hypertrophy, nymphoplasty, Hospital Institute hygiene Social

Volume 15 Issue 4 - 2024

**Samb Fatou, Niang Mouhamadou Mansour,  
Cisse Cheikh Tidiane**

Hospital Institute of Social Hygiene, Senegal

**Correspondence:** Samb Fatou, Hospital Institute of Social Hygiene, Senegal, Tel +221 77 532 32 57, Email drfatsam@gmail.com

**Received:** April 17, 2024 | **Published:** July 08, 2024

## Introduction

The labia majora border the vestibule and are about 3 mm thick. Mucous in appearance, they tend to atrophy after the menopause. In adults, they often protrude from the vulval slit (50%), turn brown and darken during pregnancy. In 30% of cases, they are flush with the labia majora. Their anterior end divides into two secondary folds: an anterior fold that passes over the body of the clitoris to form the clitoral prepuce and a posterior fold that attaches to the underside of the clitoris to form the clitoral brake. Their posterior ends often join to form the vulval brake, whose mobilization, transmitted to the prepuce, contributes to mechanical excitation of the clitoris. The labia minora are formed by a hairless, defatted skin covering, with a fibro-elastic central layer rich in nerve nets and vessels reminiscent of erectile bodies, which explains its physiological changes. Highly elastic, they have a remarkable elongation reserve. This is put to good use in vulvar and vaginal plastic surgery. In certain ritual practices, the induced lengthening of the labia minora is to the detriment of the labia majora,<sup>1</sup> following the example of several regions in Eastern and Southern Africa, including Uganda, Rwanda, Zambia and Mozambique, where lip-lengthening is practiced.<sup>2</sup> However, in some cases, they extend beyond the labia majora without any prior action having been taken.<sup>3</sup> In most cases, labia minora hypertrophy is congenital.<sup>3,4</sup> Cases of acquired hypertrophy have been reported but are rare (vulvar lymphedema, iatrogenic hyperandrogenism, myelodysplasias...<sup>5,6</sup>

## Case description

A 21-year-old unmarried, sexually active girl was presented with the main complaint of discomfort while walking and wearing tight clothing such as pants. She reported no discomfort during intercourse. Examination revealed a slightly edematous vulva and nymphs protruding 2.5 cm beyond the labia majora. After unsuccessful clothing advice, the final treatment proposed was a reduction of the labia minora. A preoperative work-up based on rhesus blood grouping, haemogram, prothrombin level, cephalin-Kaolin time, creatininaemia

and fasting glycaemia, all of which came back normal, enabled the labia minora to be reduced according to the patient's wishes, with an incision leaving a roughly triangular area. The post-operative course was straightforward, with normal healing times. The patient was able to resume her activities and wear tight pants without pain three months after the operation.

## Discussion

Our patient was a 21-year-old, single, non-virgin female who consulted for discomfort when walking and wearing tight clothing such as pants. She did not report any discomfort during intercourse as reported in the literature. In fact, enlargement of the labia minora, generally without consequence, can sometimes be a source of local irritation (accentuated by clothing styles: very tight jeans, thongs, etc.), discomfort during intercourse and aesthetic discomfort.<sup>7,8</sup> Labia minora hypertrophy can be the cause of dyspareunia, chronic urinary tract infections, irritation, hygiene difficulties and interference with sport.<sup>9,10</sup> In a study by M. Cayrac between 2008 and February 2010, patients ranged in age from 14 to 64 years (median = 25). Motivations were aesthetic or functional, with discomfort during intercourse, sport or wearing clothes.<sup>10</sup> In Smarito's study, 100% of patients reported an undesirable aesthetic appearance, 25 out of 29 patients reported discomfort with clothing and 12 out of 29 patients reported dyspareunia.<sup>11</sup>

Examination of our patient revealed a slightly edematous vulva and nymphs extending 2.5 cm beyond the labia majora. Reduction nymphoplasty can be proposed in cases of proven anatomical hypertrophy of the labia minora (width greater than 3 to 4 cm) associated with functional and/or aesthetic discomfort. Each patient's request must be analyzed and justified. A cooling-off period of a few weeks may be proposed.<sup>12</sup> This allows us to classify our patient as type II according to the Smarito classification and as grade II according to Franco in the Mathias study. Indeed, Marito had found three types of labial hypertrophy, constituting a new classification system: Type I: the anterior form of one third, called "flag" where 11 cases were

observed in his patients (11%); Type II: the form of the middle third, called “oblique” observed in 29 of his patients (29%) and Type III: the third posterior form, called “complete”.60 cases in his patients (60%).<sup>11</sup> In Mathias’ retrospective study, he included patients who presented between September 2011 and April 2014 with hypertrophic labia minora. Classification was performed according to Franco into grades I-IV based on the protrusion of the labia minora through the labia majora: grade I, less than 2 cm; grade II, 2 to 4 cm; grade III, 4 to 6 cm; and grade IV, more than 6 cm.<sup>14</sup>

After counseling, the final alternative proposed and desired by the patient was labia minora reduction under spinal anesthesia in the saddle. During surgery, it is important to have good anesthesia for a safe and comfortable procedure. The operation can be performed under local anesthesia with epinephrine to reduce bleeding, or under epidural or general anesthesia. The decision depends on the extent of the surgical intervention and ultimately remains at the discretion of the operating surgeon and the patient, respectively.<sup>14</sup>

A preoperative workup based on rhesus blood grouping, blood count, prothrombin level, cephalin-Kaolin time, creatininemia and fasting blood glucose, all of which came back normal, enabled the labia minora to be reduced according to the patient’s wishes as described in the literature.<sup>13</sup> Other techniques have been described. Composite reduction labiaplasty was described by Gress in a 2013 publication. The study included 812 patients and is therefore the largest to date. Unlike other procedures, which are fundamentally based on a reduction of the labia minora in the area below the clitoris, the composite procedure involves a reduction of labial tissue as well as the removal of tissue located cranially or caudally to the clitoris. This results in separate segments positioned to allow uniform reduction of the labia minora along their entire length, particularly in the area of the clitoral hood.<sup>15,16</sup> Partial or total nymphectomy by longitudinal, “straight-line” resection of the free edge of the labia minora is the oldest technique described.<sup>17</sup>

The authors found that all three labia minora reduction techniques were useful in different clinical situations. A new algorithm is described to determine the optimal surgical technique for each patient according to her degree of hypertrophy and aesthetic goals.<sup>18</sup> The use of needles enables the surgeon to quickly and easily identify the medial and lateral limits of the excision zone. Although the area has been previously marked with a skin marker, needle insertion has shown that these marks do not accurately represent the area to be excised.<sup>19</sup>

In the Mathias study, 17 labioplasties (Franco type II-IV) were performed on 10 patients with an average age of  $29 \pm 12$  years (range 20-62 years). Three patients experienced scarring problems which necessitated repeat surgery. After a median follow-up of  $39 \pm 6$  months (range 28-48 months), overall patient satisfaction was high ( $8.6 \pm 1.1$ ). No dyspareunia, hypertrophic scarring or micturition problems were reported.<sup>14</sup> In one study, psychosexual and physiological results of labiaplasty and patient satisfaction were measured with FSFI (*Female sexual function index*). Accordingly, when looking at the average scores from the scale; significant increases were recorded after labiaplasty procedure in sexual desire, sexual arousal, orgasm and satisfaction scores compared to before. It is noteworthy that the average of the lubrication sub-score has decreased. However, they think that the decrease in vaginal lubrication is not a direct result of labiaplasty, but may be due to other factors. Moreover, the difference is not statistically significant.<sup>20</sup> However, the sexual desire, sexual arousal and sexual function scale was not assessed, as this was not the reason for consultation.

Serious complications such as infection and necrosis are very rarely reported (< 1%). However, patients and surgeons should be aware of possible complications: haematomas (up to 7%), postoperative pain (up to 64%), cutaneous or mucosal disunion (7%), dyspareunia (from 1% to 23%) and reoperation (from 3% to 7%).<sup>21</sup> In Solanski’s study, the convalescence period went smoothly for most patients, and no major adverse events occurred. One patient developed bilateral tense hematomas 2 hours after surgery, requiring evacuation to the operating room, while another suffered postoperative urinary retention relieved by overnight stay.<sup>22</sup>

Post-operative recovery was straightforward and healing times normal in our patient. She was completely satisfied with the operation and was able to resume her activities and wear tight pants without pain.

In the Cayrac study, 100% of patients who completed the questionnaire were satisfied with the result, and 90% would be willing to repeat the procedure.<sup>11</sup>

However, patients and doctors may, consciously or unconsciously, have different views on the aesthetics of the labia minora. Because of the wide range of patient considerations and expectations, each patient’s aesthetic or functional goals should be identified before deciding on a surgical technique (Figure 1) (Figure 2).<sup>23</sup>

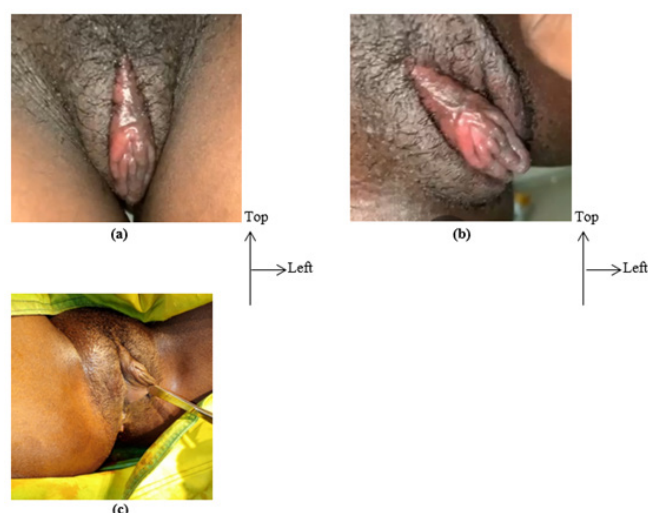


Figure 1 Before repair.

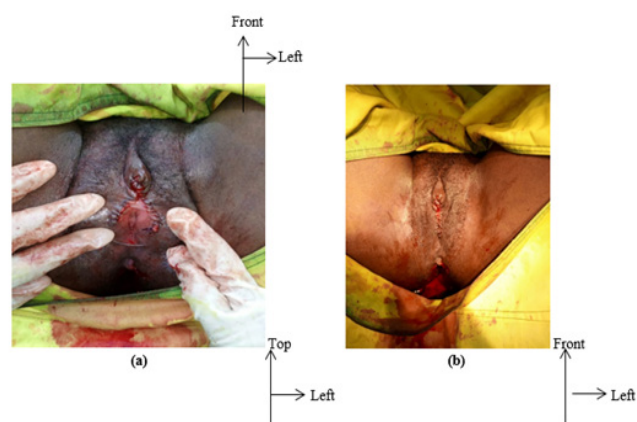


Figure 2 After repair.

## Conclusion

Labia minora hypertrophy is a reality. In our context, it is a rare reason for consultation in gynaecology. This situation is explained by the taboo on sex in our country and the lack of sexologists. Raising public awareness could probably help women and girls to seek help when they encounter difficulties.

## Acknowledgments

None.

## Funding

None.

## Conflicts of interest

The authors declare that they have no conflicts of interest.

## References

1. Encyclopedia of Gynecology. Elsevier Masson 2020.
2. L'étirement des petites lèvres Quoi, Où, Pourquoi?
3. Verkauf BS. A complete practical treatise on women's diseases. 1870.
4. Verkauf BS, Thron JV, O'Brien WF. Clitoral size in normal women. *Obstet Gynecol.* 1992;80(1):41–44.
5. Weber AM, Walters MD, Schover LR, et al. Vaginal anatomy and sexual function. *Obstet Gynecol.* 1995;86(6):946–949.
6. O'Connell HE, Hutson JM, Anderson CR, et al. Anatomical relationship between the clitoris and urethra. *J Urol.* 1998;159(6):1892–1897.
7. Adam T. Labia minora hypertrophy and nymphoplasty. Sports gynecology. Paris: Springer; 2012.
8. Benadiba L. Nymphoplasty (labiaplasty): reconstructive or cosmetic surgery? Indications, techniques, results, complications. *Annales de Chirurgie Plastique Esthétique.* 2010;55(2):147–152.
9. Wu JA, Braschi EJ, Gulminelli PL, et al. Labiaplasty for hypertrophic labia minora contributing to recurrent urinary tract infections. *Female Pelvic Med Reconstr Surg.* 2013;19(2):121–123.
10. Miklos JR, Moore RD. Labiaplasty of the labia minora: patients' indications for pursuing surgery. *J Sex Med.* 2008;5(6):1492–1495.
11. Cayrac M, Rouzier R. Treatment of labia minora hypertrophy. Evaluation of labia minora reduction by longitudinal resection. Evaluation of labia minora reduction by longitudinal resection. *Gynecol Obstet Fertil.* 2012;40(10):561–565.
12. Smarrito S. Classification of labia minora hypertrophy: A retrospective study of 100 patient cases. *JPRAS Open.* 2017;13:81–91.
13. Paniel BJ. Hypertrophie des petites lèvres. EMC (Encyclopédie médico-chirurgicale)-Techniques chirurgicales-Gynécologie.
14. Mathias TO, Carlo M, Schaefer Dirk J, et al. The butterfly technique: a retrospective study for labia minora reduction using an integrated approach. 2021.
15. Gress S. Composite reduction labiaplasty. *Aesthet Plast Surg.* 2013;37:674–683.
16. Oranges CM, Sisti A, Sisti G. Labia minora reduction techniques: a comprehensive literature review. *Aesthetic Surgery Journal.* 2015;35(4):419–431. © 2015 The American Society for Aesthetic Plastic Surgery, Inc. Reprints and permission: journals.permissions@oup.com.
17. Pourcelot G, Fernandez H, Legendre G. Quelle technique chirurgicale utiliser en cas d'hypertrophie des petites lèvres ? Surgical reduction of labia minora: Which approach? *Gynecol Obstet Fertil.* 2013;41(4):218–221.
18. Ellsworth WA, Rizvi M, Lypka M, et al. Techniques for labia minora reduction: an algorithmic approach. *Aesth Plast Surg.* 2010;34:105–110.
19. Rauso R, Tartaro G, Salti G, et al. Utilization of needles in the surgical reduction of labia minora: a simple and cost-effective way to reduce operating time. *Aesthet Surg J.* 2016;36(10):NP310–NP312.
20. Erdogan G. Evaluation of satisfaction level of women with labiaplasty. *Clinical and Experimental Obstetrics & Gynecology.* 2021;48(4):918–923.
21. Deffieux X, Leonard F, Fernandez. Nymphoplastie de réduction pour hypertrophie des petites lèvres. Elsevier Masson SAS. 2010.
22. Solanki NS, Tejero-Trujeque R, Stevens-King A, et al. Aesthetic and functional reduction of the labia minora using the Maas and Hage technique. *J Plast Reconstr Aesthet Surg.* 2010;63(7):1181–1185.
23. Lange M, Joris Hage J, Karim RB, et al. The Korean society of plastic and reconstructive surgeons. An algorithm for labia minora reduction based on a review of anatomical, configurational, and individual considerations. *Arch Plast Surg.* 2023;50:17–25.