Management of the Mons Pubis and Labia Majora in the Massive Weight Loss Patient

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The high incidence of female obesity and weight loss has resulted in common complaints of a large, protuberant mons pubis and labia majora (outer labial lips) related to unsightly fat deposits and skin ptosis. The author presents a technique to correct the protuberant mons and pubic descent by performing a pubic lift, fat excision, and liposuction, and then tacking the superficial fibrofatty tissue to the rectus fascia. The labia majora enlargement is treated by fat excision and/or liposuction and skin excision. These techniques eliminate difficulties with sexual intercourse, poor hygiene, and discomfort, while also improving self-esteem. (Aesthet Surg J;29:432-442)

The high incidence of female obesity has resulted in common complaints of a large mons pubis and labia majora (outer labial lips) related to unsightly fat deposits. The mons and labia majora enlarge, protrude, descend, and hang. Even with dramatic weight loss, these areas remain descended and bulky, with excess fat and skin. The affected majora can cause difficulty with sexual intercourse and maintenance of hygiene, and result in discomfort when wearing pants and swimsuits. These unnatural fat deposits can also severely affect self-esteem.

The surgical treatment of the enlarged mons pubis and labia majora has been poorly understood and therefore often neglected. Traditionally, the mons has been treated by fat reduction, whether by liposuction or open excision, along with a pubic skin lift. However, skin elevation is usually unsatisfactory, because the mons will descend again upon standing. Many of these unsuccessful lifts present after a simultaneous abdominoplasty. Oftentimes, a surgeon will then perform a second unsuccessful pubic lift, resulting in an unsightly reduction of the normal escutcheon. Alternatively, some surgeons excise the excess pubic skin and fat in the midline, which causes an unsightly vertical mons scar, oftentimes a T scar. Surgeons also avoid labia majora reduction because of a lack of literature detailing operative techniques coupled with a fear of creating sexual dysfunction.

In many ways, the treatment of the mons pubis correlates with the treatment of the hidden penis in the obese or formerly obese male. Excess suprapubic skin and mons fat removal—along with tacking of the fibrofatty tissue of the pubic skin flap to the rectus fascia—are mandatory to achieve a lasting, successful mons pubis lift. Labia majora reduction depends on the surgically appropriate removal of fat and/or skin.

SURGICAL PLANNING

The patient is first evaluated while in a standing position. An abdominoplasty or panniculectomy can be performed at the same time as the pubic lift, but it may result in increased postoperative labia majora swelling. Therefore, the author suggests that it not be performed at the same time as open labia majora reduction. The amount of pubic descent is evaluated. If present, the panniculus or abdominal skin is manually elevated and the pubic area is raised to determine the amount of excess skin above the pubic hairline that needs to be transversely excised. The amount of lift necessary can be estimated by placing the anterior labial commissure over the pubic symphysis. Only a few centimeters of skin incision is usually necessary, because the skin will modestly contract when fat is removed. The skin to be excised is marked as a transverse crescent excision and placed just below the panniculus fold or in a previous abdominoplasty scar (Figure 1, A). The crescent incision may extend laterally to each anterior superior spine, but an incision that is so extensive is usually unnecessary. The labia majora are also elevated upon raising the...
mons, so this change should be noted along with the amount of inferior labial protrusion.

The patient is then examined while in the lithotomy position. A decision is made as to whether the patient needs labia majora skin and/or fat excision (Figure 1, B). Labia majora fat can be excised from above through the pubic incision or with the use of liposuction, but these approaches are not as effective or precise as resections directly through the labial incisions. Labial markings are made in the lithotomy position and checked while the patient is standing. The amount of skin excision should be determined with the patient’s legs widely abducted to prevent over-resection. A medial crescent of labial skin to be removed on each side is marked from the anterior to the posterior labial commissures. The medial incision line is usually placed just within the hairline in an attempt to give a good color and tissue match upon wound closure. Sometimes, the anterior crescent needs to be extended slightly above the anterior commissure to eliminate a dog-ear. Because the anterior incisions from each side should not meet in the midline, the most anterior markings may need to be angled more vertically in a fusiform pattern. Care should be taken not to remove too much skin, which would cause the vaginal introitus to gape, especially when the legs are abducted. Adjustments for asymmetry are made, which is common. With the patient first lying down and then standing up, the marked skin crescents are pushed in longitudinally with cotton swabs to evaluate the probable appearance after resection. If the patient has long, protuberant labia minora (inner lips), she should be informed that they will be more protuberant after surgery.

**TECHNIQUE**

In the operating room, the patient is placed in the lithotomy position, and the abdomen and genitalia are prepped. The pubic lift is performed first. Through the upper incision of the skin crescent, the skin and subcu-
taneous tissue are incised to the rectus fascia (Figure 2, A, B). The fat is elevated off the rectus to the level of the pubic symphysis (Figure 3, A, B, D). The lower crescent incision is made and a modest amount of underlying fat is excised and tapered toward the pubic symphysis (Figure 3, C). Liposuction of the fat of the pubis, upper labia majora, and inguinal areas is performed after tumescent fluid infusion (Figure 3, E and F). Enough fat is removed to leave about 1 to 2 cm of fibrous subcutaneous tissue on the skin flap. If liposuction does not eliminate enough fat under the flap, further conservative open fat excision is needed, but care should be taken to leave enough fibrous tissue under the skin flap for suture placement. The lateral areas should be contoured with liposuction or open excision to prevent an unsightly pubic concavity. Overly aggressive inguinal fat excision is unnecessary and can theoretically cause genital lymphedema. If a labial incision is not going to be performed, then liposuction of the labia majora or majora fat excision from above is performed at this time. Closed suction drains are placed in each labium if open excision with fat removal was performed.

In order to maintain the lifted position of the mons, rows of transverse tacking sutures of no. 1 polyester (Ethibond [Ethicon, Somerville, NJ], Ticron [Tyco, Waltham, MA], or Mersilene [Ethicon]) are placed with a large tapered needle (CTX; Ethicon; Figure 3, G). The first row of three sutures is placed from the fibrous fatty tis-
sue several centimeters superior to the anterior labial commissure, to the rectus fascia just cephalad to the pubic symphysis and medial to the external rings (Figure 3, H–J). Placement of these sutures usually requires several attempts in order to prevent an abnormal “pulled” appearance of the majora, to minimize pubic dimpling, and to achieve symmetry. At least two more transverse rows of three sutures are usually placed from the flap to the rectus fascia. A closed suction drain is placed from the symphysis around one side of the wound and then under the skin closure (Figure 3, J, K).

If labia majora skin and fat excision is to be performed, the medial crescents are excised, followed by precise excision of underlying fatty tissue. If no skin is to be removed, fat alone can be removed through medial labial incisions. Care should be taken not to over-resect the fat, and symmetry should be respected. Meticulous hemostasis is mandatory, because large vessels are present. Bilateral closed suction drains are inserted and brought out through the lateral pubic areas with significant fat removal. The subcutaneous tissue is closed in several layers and a subcuticular...
Figure 4. The 23-year-old woman described in Figure 1 is shown preoperatively (A, C, E) and four months after (B, D, F) pubic lift and labia majora liposuction with Z-plasties to eliminate restrictive medial thigh bands.
Figure 5. A 34-year-old woman who lost 200 lbs. had previously undergone an abdominoplasty with an attempt to decrease the mons fat pad at the same time. Preoperative markings indicate the amount of pubic skin to be excised, which includes the previous abdominoplasty scar. Symmetric marking for excision of labia majora are shown.

Figure 6. A, B. The patient in Figure 5 is shown with preoperative markings for labia majora skin excision. The pubic lift has been completed. The medial excision was placed just lateral to the hairline. The anterior excisions do not cross the midline. Care was taken to maintain enough labia majora skin to allow for full leg abduction without opening the vagina. C. The patient is shown after reduction of the labia majora and pubic lift.

Figure 7. A. Again, the patient in Figure 5 is shown preoperatively in the lithotomy position with mons fat pad and excess labia majora skin and fat. B. Ten months after pubic lift. Ideally, the patient could probably benefit from more mons liposuction, but is pleased with the postoperative results.
Figure 8. The 34-year-old woman shown in Figures 5, 6, and 7 is shown preoperatively (A, C, E). These images show her protuberant mons fat pad and enlarged, hanging labia majora. B, D, F, Ten months after pubic lift. The patient could still benefit from more mons liposuction.
Figure 9. A, C, E. Preoperative views of a 58-year-old woman who had undergone previous abdominoplasty and unsuccessful mons lift with liposuction. She presented with a massive mons fat pad and labia majora. She had a previous medial thigh lift, so labia majora skin excision was not performed at the same time as the mons lift. B, D, F. One year after pubic tacking with mons and labia majora fat removal. The labia majora are still too large, so the patient later underwent labia majora skin and secondary fat removal one year later (see Figure 11).
Figure 10. Intraoperative photos feature the patient described in Figure 9. **A**, The pubic flap and fat are dissected. **B**, The mons and majora fat are removed from above. The fat to be excised extends into the labia majora. **C**, The pubic flap anterior, the rectus fascia posterior, and the tunnels in the labia majora after lipectomy are shown. **D**, Excised skin and fat (left) and suctioned fat and fluid (right).
Figure 11. The patient in Figure 9 underwent a second procedure one year after the first. The labia majora were still enlarged despite the previous fat excision through the pubic approach. A, Preoperative markings for skin and fat excision. B, Fat and skin are excised. The fat excised is from the right labium. C, Illustration of the crescent of skin removed from the medial labium majora. The shape depends on the amount of excess skin. The two incision lines should not meet in the midline. Fat is excised. D, Labia majora are shown at the end of the procedure, after the fat and skin have been removed. E, Illustration of the closure, which is performed in layers. A subcuticular closure is performed on the skin and a deep drain is placed if significant fat is removed. F, Bilateral closed suction drains have been inserted.
skin closure is performed. Clinical examples and additional intraoperative details are shown for three patients in Figures 4 through 11.

**PRECAUTIONS**

No change in sexual sensation will occur if the clitoris is not injured. This will not occur if mons fat excision is removed superior to the pubic symphysis, and if labia majora fat excision is performed lateral to the pubic symphysis and clitoral hood and superficial to the ischium. The body and glans of the clitoris can be palpated between your fingers for orientation.

The mons should not be overly elevated, because this creates an abnormal escutcheon, with deformity of the labia majora and clitoral hood. Over-resection of mons fat can cause a pubic concavity or unnatural appearance. Over-resection of labia majora fat can cause a significant flattening deformity.

Labia majora skin excision should be measured carefully and with patient approval. A gaping introitus caused by over-resection can be a disastrous complication, leading to discomfort in clothes and with exercise, vaginal dryness, and an inability to completely abduct the legs, therefore causing severe functional and emotional disabilities. Labia majora skin excision should be conservative if a medial thigh lift is contemplated or was recently performed, because later relaxation of the medial thigh Colles fascia tacking sutures can result in an open introitus.

Labia majora skin excision probably should not be done at the same time as a pubic lift with fat excision if a medial thigh lift has previously been performed, because the blood supply to the skin between the labial incision and the previous medial thigh incision may be compromised. Alternatively, superior fat excision or liposuction can be performed initially, followed by later skin excision if necessary.

**CONCLUSIONS**

Obese patients or patients who have undergone massive weight loss have significant deformities from protuberant mons pubis and labia majora. Excellent techniques are available to treat this overlooked issue. Improvement of this area can significantly improve patient comfort, self-image, and self-esteem.

**DISCLOSURES**

The author has no disclosures with respect to the contents of this article.

**REFERENCES**


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