Clitoral Subdermal Hoodoplasty for Medical Indications and Aesthetic Motives

A New Technique

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OBJECTIVE: To present a newly developed surgical intervention (clitoral subdermal hoodoplasty) for an asymmetrical clitoral prepucial thickness hypertrophy and to evaluate its applicability and outcomes.

STUDY DESIGN: The study was conducted on 3 consecutive patients with symptomatic, asymmetrical-in-thickness clitoral prepucial hypertrophy. A clitoral subdermal hoodoplasty surgical technique for asymmetrical clitoral prepucial thickness hypertrophy has never been described before. An observational prospective, multiple time series clinical study was conducted. Primary outcome measures were to determine applicability, outcomes, and potential complications of the new surgical intervention. Data collected included demographics, patient selections, intraoperative and postoperative complications, and outcomes of the newly developed surgical intervention.

RESULTS: All subjects demonstrated subdermal hypertrophy of the clitoral prepuce. The newly developed procedures were successfully applied. Complications were not observed. The surgical intervention resulted in resolving medical symptoms and signs and provided pleasing aesthetic outcomes. In this study the procedure was simple to execute and well-tolerated by all subjects, without short-term and long-term complications.

CONCLUSION: Clitoral subdermal hoodoplasty is a useful method in the treatment of clitoral subdermal hypertrophy. (J Reprod Med 2013;58:149–152)

Keywords: clitoral hoodoplasty, clitoral prepucial asymmetry, clitoris, cosmetic surgery, gynecologic surgery, plastic surgery.

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There are two distinct types of clitoral prepucial surgical interventions: *restorative* clitoral hoodoplasty for the buried or phimotic clitoris[1,2] and *reductive* clitoral hoodoplasty for the elongated clitoral prepuce or reductive clitoral subdermal hoodoplasty for asymmetrical subdermal hypertrophy of the clitoral prepuce. The restorative hoodoplasty of hydrodissection with reverse V-plasty was described by Ostrzenski[1]; this technique was designed to excavate the clitoral glans from the partially (phimosis) or totally occluded clitoral prepuce. The reductive hoodoplasty is a surgical intervention designated to decrease excessive length of the clitoral prepucial tissue. Subdermal clitoral pre-

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pucial reduction (clitoral subdermal hoodoplasty) is a surgical intervention designed for asymmetrical thickness of the clitoral prepuce.

This presentation verifies the newly appreciated subdermal hypertrophied clitoral prepuce condition causing symptoms and asymmetry of the clitoral prepuce, provides evidence for the need of a new surgical intervention, and describes a new technique of clitoral subdermal hoodoplasty. Objectives of this observational prospective, multiple time series clinical study were to present a newly developed surgical intervention (clitoral subdermal hoodoplasty) for an asymmetric clitoral prepucial thickness hypertrophy and to evaluate applicability and surgical outcomes.

Materials and Methods

A search of the existing literature was carried out from 1900 to May 2010 and failed to identify a subdermal clitoral hoodoplasty or similar surgical intervention. Therefore, this presentation is the first description in the scientific-clinical literature of a subdermal clitoral hoodoplasty. Also, the term *clitoral prepucial asymmetry* and the nomenclature for the surgical intervention of subdermal clitoral hoodoplasty are newly introduced.

Three consecutive patients associated with asymmetrical thickness of the clitoral prepuce requested clitoral hoodoplasty. All 3 women presented with an asymmetric thickness of the clitoral prepuce and met criteria for clitoral subdermal hoodoplasty.

The first patient was a 32-year-old, Caucasian, woman, gravida 0, para 0. She presented with a hypertrophic, elongated clitoral prepuce that had uneven thickness as well as enlarged labia minora. She reported extreme embarrassment over these conditions. The subject requested to reduce the length and to create uniform thickness of the clitoral prepuce as well as to have the clitoral glans exposed from the prepucial orifice by approximately 5 mm. In addition to embarrassment, she reported feeling different and unhappy in her intimate relationship, caused by "noticeable overgrowing of her private parts" and difficulties with maintaining hygiene and controlling offensive odor. She also reported discomfort during erection of the clitoris, particularly during direct clitoral glans stimulation; however, the discomfort sensation had not prevented her from reaching an orgasm. Initially the patient was subjected to modified hydrodissection with reverse V-plasty.[1] Six months following the hydrodissection with reverse V-plasty, clinical evaluation revealed the presence of visible differences in the symmetry of thickness of the clitoral prepuce. Also, discomfort during the arousal phase of the sexual cycle was present despite the clitoral glans being exposed 5 mm from the opening of the clitoral hood as a result of the initial reductive hoodoplasty surgery. Upon clinical examination the clitoral glans was noted to be deviated from the natural midline position towards the left thinner size of the prepuce (Figure 1).

The second patient was a 26-year-old, Caucasian, woman, gravida 1, para 1001. She complained about excessively large, asymmetric, and darkly pigmented labia minora, and her clitoral hood was elongated and asymmetric in thickness. These conditions caused a negative body image perception which led to decreased self-confidence and a social phobia and anxiety. She was treated with cognitive-behavioral-exposure modification by a local psychologist and pharmacologic therapy (selective serotonin reuptake inhibitors) by a psychiatrist. After initial therapeutic success, symptoms of social phobia, which presented as a fear of potential negative evaluation by others, returned. She was referred for possible surgical treatment of her aberrant external genitalia, which were causing the emotional and social disorders. The patient requested to reduce the size of the clitoral prepuce and the labia minora, which she had considered to be responsible for her deterioration of social and emotional well-being.

Following the hydrodissection with reverse V-

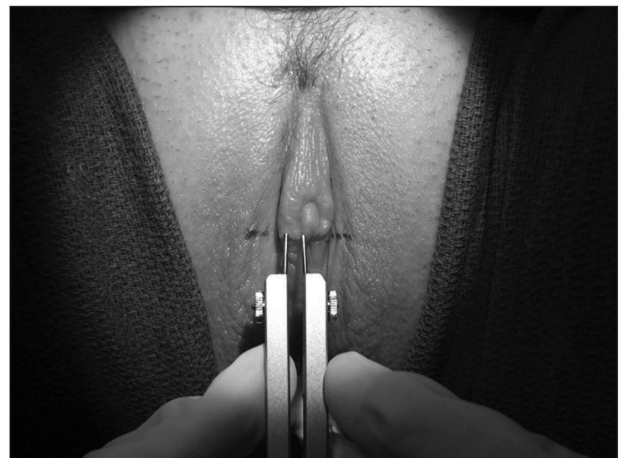

Figure 1 Preoperatively the asymmetrical clitoral prepuce with the clitoral glans deviation from midline to the left site is depicted and a marking process is launched.

plasty and before the second stage of surgery, a targeted physical examination revealed the asymmetry in clitoral prepuce thickness. The clitoral glans was noted to be uncovered 3 mm following the initial surgery of modified Ostrzenski's hydrodissection with reverse V-plasty.[1]

The third patient was a 30-year-old, Hispanic, woman, gravida 3, para 3003. She gave a history of having a significantly protruding clitoral prepuce and elongated labia minora. She requested aesthetic correction of the appearance of both the clitoral prepuce and the labia minora. Before the second stage of surgery an evaluation revealed an uneven clitoral prepuce caused by clitoral prepuce subdermal hypertrophy; the clitoral glans was exposed 3 mm from the opening of the clitoral hood following her initial surgery of modified Ostrzenski's hydrodissection with reverse V-plasty and labia minora labioplasty.

All 3 women were subjected to 2 stages of surgical intervention: (1) modified hydrodissection with reverse V-plasty to reduce the size of the clitoral prepuce and (2) clitoral subdermal hoodoplasty to decrease the thickness of the clitoral prepuce. Also during stage I, labia minora labioplasty was performed. Both stages of surgical intervention were performed under local anesthesia without conscious sedation.

Local Anesthesia

The procedure was executed under local anesthesia without sedation. A thick layer of lidocaine-prilocaine (2.5%/2.5%) cream was applied to the clitoral prepuce and to immediately adjacent areas. The region was covered with sterile gauze for 1 hour. The last 30 minutes an ice pack was added to this area. Upon removal of the ice pack the remaining anesthetic cream was wiped off and the operative field was prepped with a disinfectant solution. Marcaine 0.5% with epinephrine in concentration 1:200,000 (Hospira, Inc., Lake Forest, Illinois) was used for local anesthesia, and the 27 G × 1/2 inch needle and syringe (Terumo, Elkton, Maryland) were used for the infiltration. Neither conscious sedation nor pudendal block was used.

Clitoral Subdermal Hoodoplasty Technique

An incision was made with No. 15 surgical blade on the right, thicker clitoral prepuce until the connective tissue stratum was visualized. The resection of the subdermal tissues was performed until even thickness of the clitoral prepuce was accomplished. Excess lamina of the clitoral prepuce was trimmed (Figure 2). Upon completion of this part of the procedure attention was given to bringing the edges together without any tension (Figure 3). The edges were approximated with 4-0 PDS absorbable single suture. There were no intraoperative, short-term or long-term complications observed in any of the 3 subjects. Bleeding during the procedure was negligible.

Postoperatively none of the notable complications described by the American Congress of Obstetricians and Gynecologists were encountered (no bleeding, infection, adhesions, dyspareunia, or altered sensation was noted).[3] The subjects had uncomplicated recoveries with minimal discomfort that was controlled by Dermoplast, an antiseptic and pain relieving spray (Medtech, Jackson, Wyoming). The subjects engaged in vaginal sexual intercourse with their respective male partners 6 weeks following the second surgery.

Results

All study subjects demonstrated subdermal hypertrophy of the clitoral prepuce, which qualified them for this new procedure of clitoral subdermal hoodoplasty. In all 3 patients, pleasing aesthetic surgical results were accomplished and no complications were observed. With the first patient, her discomfort associated with the sexual arousal phase subsided and hygienic difficulties and odor control became manageable. Self-image and confidence improved and have been documented during the 2-year postoperative period. The second patient's

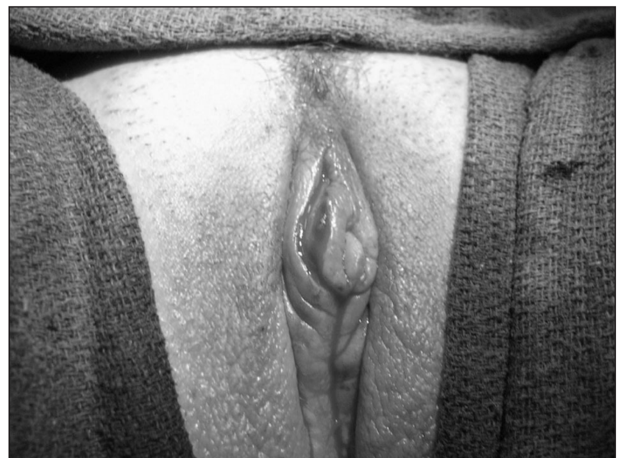

Figure 2 The subdermal connective tissue stratum before subdermal resection is performed.

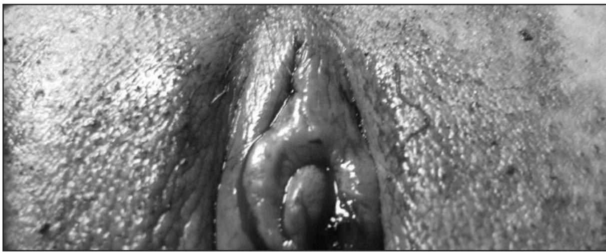

Figure 3 A subdermal resection of the connective tissue stratum was partially resected, and the even size of the clitoral prepuce was achieved. The incision was tension-free and the edges of the incision approximated spontaneously.

social phobia subsided and has not required further psychological or pharmacological treatments. She has been symptom-free for the 2 years following the surgeries and has recently remarried. She reported very pleasing aesthetic results. In the third case, the aesthetic outcomes of the surgical interventions met the patient's expectations. Also, she reported no feeling of regret, her social openness and intimate interaction increased, and her body image perception improved following the modified hydrodissection with reverse V-plasty and clitoral subdermal hoodoplasty.

Discussion

Clitoral subdermal hoodoplasty is a newly developed reconstructive operation for medical indications and aesthetic motives. In 2008 Alter[4] described the clitoral aesthetic hoodoplasty, which incorporated the central V-plasty of the labia minora with clitoral hood reduction using the extended central wedge resection. Neither Alter's technique[4] nor Ostrzenski's technique[1] reduces uneven thicknesses of the clitoral prepuce; therefore, a new technique of clitoral subdermal hoodoplasty was developed and presented here.

The clitoral subdermal hypertrophic prepucial anomaly is characterized by the presence of both the elongated clitoral prepuce and an asymmetrical thickness of the prepuce. Clitoral prepuce length reduction itself will not provide satisfactory aesthetic outcomes for asymmetrical thickness of the clinical prepuce. Subsequently, subdermal resection of the clitoral prepuce is needed. This condition may require a 2-stage intervention with 2 different procedures due to the fact that significant intraoperative edema can interfere with estimating the amount of tissue that needs to be excised and can make preoperative marking difficult intraoperatively. The first stage of surgical treatment reduced clitoral prepucial length using Ostrzenski's modified hydrodissection with reverse V-plasty technique.[1] In the second stage of surgery clitoral subdermal prepucial resection was performed.

These cases enlighten us on the existence of an additional form of clitoral prepucial anomaly, in addition to length, which requires a different clinical management to achieve desirable aesthetic results and resolve clinical symptoms. According to the World Health Organization health definition, "health is not merely the absence of disease; it also encompasses an individual's physical, social, and emotional well-being."[5] Also, these cases teach us that traditional reductive clitoral hoodoplasty does not provide desirable aesthetic results when the thickness of the clitoral prepuce is uneven.

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