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## Introduction

Vaginal rejuvenation surgery should improve both the aesthetics and sexual function of the vagina. Its objective is to restore the internal vaginal canal tightness and anatomical relationships, and the appearance of the external genitalia – introitus and labia, back to the pre-childbearing state, without compromising the sensory nerves or the specialized vascular structures. Beyond good

aesthetic results, the surgery should enhance the sexual function for the woman and her partner. Special surgical techniques, designed by considering the anatomy and physiology factors of the vagina, introitus and labia, were implemented in performing vaginal rejuvenation under only local anesthesia.

## Aim

The aim of this study is to show that objective improvement of the vaginal anatomy and subjective improvement of sexual function can be achieved with the described refined surgical approach.

## Method

In a study of 10 patients with complaints of vaginal and introital relaxation also decreased sexual satisfaction, the refined techniques in vaginal rejuvenation were used to improve both aesthetic and function of the vagina and introitus. Special attention was paid to ensure the resulting angle of transition between the introitus and the vaginal canal and the tightness of the vaginal canal would optimize the interaction between the penis and the clitourethrovaginal (CUV) complex to promote sexual response.

### Practical points in surgical technique to optimize sexual function

#### Preserving Nerve Distribution:

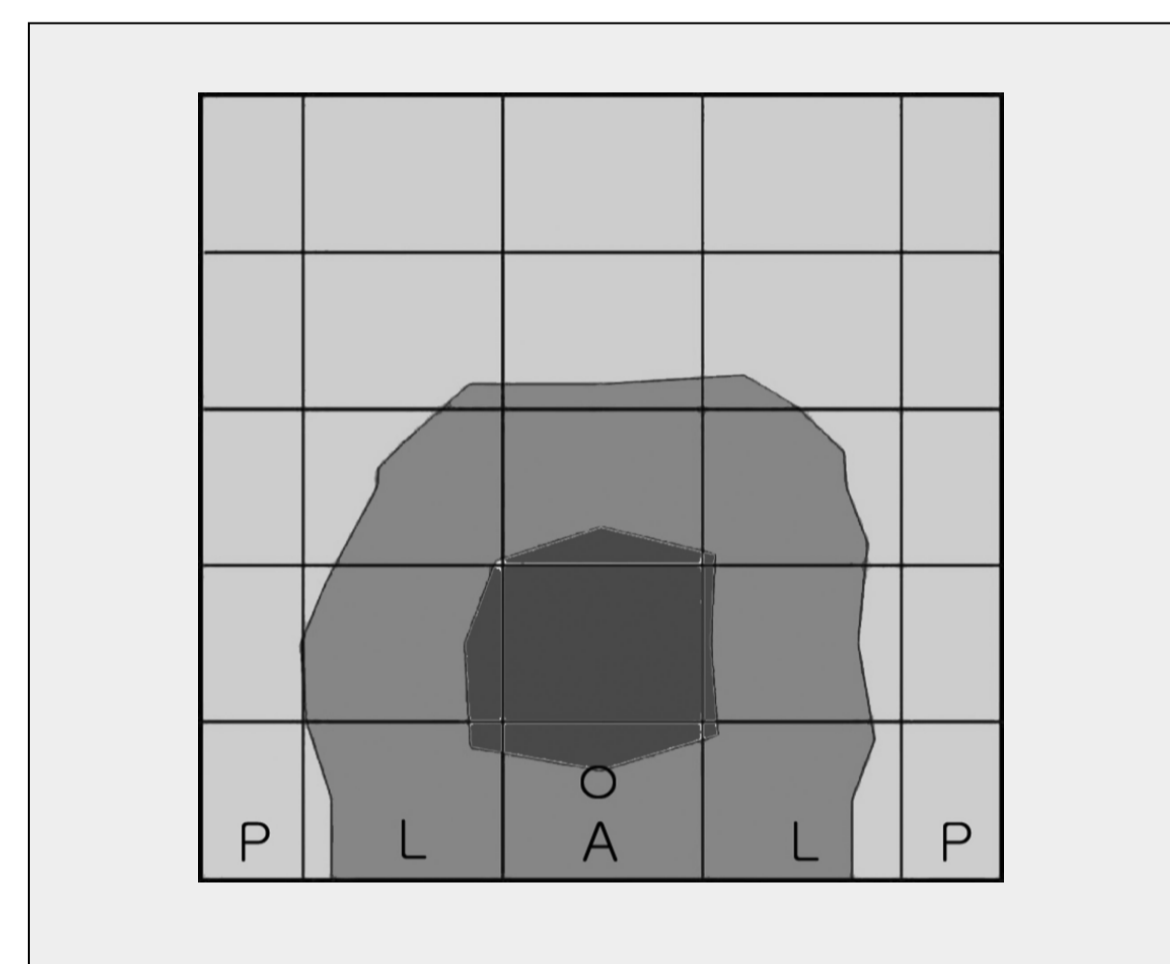
- Avoid operating on distal anterior vaginal wall erogenic structures
- Reconstruct the posterior wall to optimize effect and minimize nerve damage
- Need to properly plicate the pelvic floor muscles and endopelvic fascia to achieve optimal vaginal canal tightness & contour
- Avoid thermal damage and excessive tissue trauma
- Preservation of mucosa

#### Consider specialized vascular elements

- Preserve clitoris and bulb structures
- Avoid excessive tissue tension

#### Optimize the angle of transition between the introitus and the vaginal canal

- Smooth gradual transition of the angle, avoid creation of ridge and pocket by over-approximating the bottom portion of the labia majora & minora



**Sensory Nerve Density Distribution of the Vaginal Walls – most dense at distal anterior vaginal wall, least posterior vaginal wall**

Density of terminal nerve branches – darker area more dense. Unfolded vaginal tract showing vaginal wall divided into four sides: anterior (A), two lateral (L), and posterior (P). Circle indicates urethral orifice. (Credit: Yon BS, et al, J of Sex & Marital Therapy 35; 2009)

## Results

In the post treatment examination, there was no negative change in the sensory function of the vagina. The tightness of the vaginal canal and the introitus was graded as “much improved” by the patients subjectively, and verified by objective examination. Special attention was paid to the transition angle between the introitus

and the vaginal canal. . There was no complication reported. Self reported improvement of female sexual satisfaction was confirmed in all patients.

## Discussion

Cosmetic vaginal surgery should be performed not only for aesthetics, even though the term “cosmetic” is used. Restoration and improvement of the sexual function for the woman is of paramount importance. The surgery needs to tighten the muscles and endopelvic fascia properly to restore the pre-childbirth vaginal size and contour. In reconstructing the vaginal introitus, it is much more than just plication the lower aspect of the labia majora and minora at the posterior fourchette area – which often creates a pocket internal to such tightening, causing painful and less optimal sexual activities. The transition of muscle and fascia tightening needs to be gradual at the transition zone through the hymenal ring as to recreate the normal angle which would allow the penis to directly stimulate the highly erogenic region of the clitourethrovaginal (CUV) complex to promote sexual response.

It is also important to note that it is the muscular and endopelvic support that determines the tightness, shape and

direction - angle – of the vagina, and not the thin vaginal mucosa that should always comply with the stronger deeper tissue of muscles and fascia. There is no advantage in over-resecting and overtightening the vaginal mucosa during the vaginal rejuvenation surgery. There are sensory nerves, and specialized vascular elements that would engorge during sexual activities in the vaginal mucosa. Therefore, the vaginal mucosa should be preserved as much as possible during vaginal rejuvenation. Proper plastic surgical techniques should always be used while performing vaginal rejuvenation to optimize both the aesthetics and function of the vagina.

## Conclusion

Sexual function, as well as the aesthetics of the vagina, can be improved with vaginal rejuvenation surgery, especially when done with proper anatomical and physiological considerations. The introital-vaginal transition angle and its relationship to the CUV complex should be considered in performing the surgery