

# Lichen Sclerosus Complicated by Vaginal Stenosis: Diagnosis and Management

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## Abstract

Lichen sclerosus is a chronic, skin disease. The involvement of the vagina is not a characteristic of lichen sclerosus. We report a rare case of vulvovaginal syndrome as a complication of lichen sclerosus with the diagnosis and the management of vaginal synechia leading to intravaginal fluid accumulation mimicking pelvic mass. There were two interesting aspects of this case. First, the location of the synechia was behind the introitus, in the vagina. The second was the presence of a pelvic cyst in the lower pelvis. The surgical correction of the case was accomplished with vulvoperineoplasty but the difficulty of this procedure was the identification of the vaginal mucosa after dissection of the synechia. On the next step, the mucosa was attached to the vulvar skin with separate sutures. The postsurgical corticosteroid treatment and the regular dilatation of the introitus are essential to prevent the restenosis.

**Keywords:** lichen sclerosus, vaginal synechia, vaginoperineoplasty

## Özet

### Vajinal Stenozla Komplike Liken Sklerozus: Tanı ve Tedavi

Liken sklerozus kronik bir deri hastalığıdır. Vajina tutulumu liken sklerozusta ender olarak görülür. Liken sklerozusa bağlı oluşan, vajina ve gerisinde pelvik kitleyi taklit eden bir vajinal sineşi olgusu sunularak tanı ve tedavisi tartışılmıştır. Bu olgu sunumunun iki önemli noktası bulunmaktadır. Birincisi, liken sklerozusa bağlı yapışıklık vulvada değil vajina içerisinde yerleşimlidir. İkincisi, pelviste derin yerleşimli bir kistin varlığıdır. Cerrahi işlem, vajinoperineoplasti ile gerçekleştirilmiştir. İşlemin teknik zorluğu, sineşi diseksiyonu sırasında vajina mukozasının ayırt edilebilmesidir. Ayırt edildikten sonra vajinal mukoza, vulva derisine separe sütürlerle birleştirilerek ağızlaştırılmıştır. Yeniden stenoz oluşumunun önlenmesi cerrahi sonrası kortikosteroid kullanımı ve düzenli dilatasyonla sağlanabilmektedir.

**Anahtar sözcükler:** liken sklerozus, vaginal sineşi, vaginoperineoplasti

## Introduction

Lichen sclerosus is a chronic, lymphocyte-mediated skin disease that may affect any cutaneous surface but shows a predilection for the anogenital area. The tissue modifications that occur in lichen sclerosus produce a number of atrophic changes in the vulvar structures. The involvement of the vagina is not a characteristic of lichen sclerosus although variable degrees of narrowing of the introitus may occur. Longinotti reported a case in 2005, stating that there had not been any reports on vaginal lichen sclerosus since 1940 (1).

On this basis of the existing literature, we report a rare case of the vulvovaginal syndrome of lichen sclerosus with vaginal synechia leading to intravaginal fluid accumulation mimicking pelvic mass.

## Case

A 55-years old, postmenopausal woman with oral lichen planus introduced to our clinic with serious vulvar itching, constipation and inability in sexual intercourse. For 4 years she had been on corticosteroid and/or immunosuppressant treatment for oral lichen sclerosus.

On gynecological examination, there were white areas on the vulva. Vaginal examination could not be performed because of vaginal fusion. On rectal examination there was a

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10 cm cystic mass in the lower pelvis at the site of the vagina. In translabial ultrasonography, there was a cystic mass 8 cm in diameter on the site of the vagina (Figure 1). The pelvic magnetic resonance imaging revealed similar findings as ultrasonography.

Under general anesthesia, the patient was positioned in dorsolithotomy with the intention of sharp dissection of vaginal synechiae (Figure 2a). After the dissection 1.5 cm in length, approximately 200 cc yellow, thick fluid drained from the opening. It was completely drained and vaginal mucosa was identified. The samples for microbiological and cytological examination were collected. Later endocervical and endometrial biopsies were performed. Then, the vaginal mucosa was stiched to vulvar epithelium around the introitus with separate sutures approximately 0.5 cm apart from each other (Figure 2b). Vaginal and vulvar biopsies taken were reported to be consistent with 'erosive lichen sclerosus'. The endocervical biopsy revealed 'squamous metaplasia' and the endometrial biopsy was 'atrophic endometrium'. The cultures



**Figure 1.** The vaginal cyst and uterus on the transabdominal ultrasonography scan.



**Figure 2a.** Preoperative view of the vulva (operator is pointing at the vaginal stenosis as a complication of lichen sclerosus).

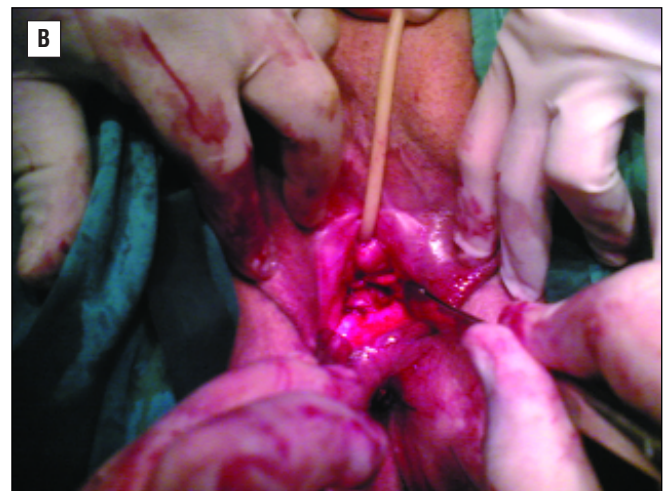
of the fluid remained sterile. The cytological examination did not reveal a malignant cell, Lichen sclerosus but mainly leucocytes. The patient was discharged on the 2<sup>nd</sup> postoperative day without any complication. On discharge local corticosteroids were prescribed and regular sexual intercourse was advised beginning two weeks after the operation. The patient was controlled on the first, third and sixth postoperative months. The vaginal opening was noted to be normal.

## Discussion

Lichen sclerosus is a fairly common precancerous skin condition that can occur in skin on any part of the body but more commonly the disease affects the vulva (2). Meyrick et al. (3), in studying 350 women, observed that 97.5% presented with vulvar or vulvar and perianal lesions. The incidence varies between 1/300 and 1/1000 (2,3). It has been reported in all age groups but its prevalence is higher in postmenopausal women with autoimmune diseases (2). It is mainly a slow developing inflammation of the skin. Only 3-4% of the disease may lead to squamous cell carcinoma over many years (2).

The symptoms may vary and some women have no symptoms at all. It may be discovered during medical examinations for other health problems. The skin affected areas is very itchy with a change in colour and more fragile and may split. Vulva may become distorted causing a change in the shape or size, occasionally leading to difficulties with urination or sexual intercourse (2). Vaginal desquamation may cause sticky, heavy, yellow vaginal discharge. Scarring may cause fusion of the vaginal orifice and vaginal stenosis (1,2). The adhesion of the labia minora leads to the formation of synechia that make urination difficult and can even impede coitus (2,3).

Although the involvement of the vagina is not a characteristic of lichen sclerosus, variable degrees of



**Figure 2b.** Postoperative view of the vulva after vaginoperineal anastomosis (vagino-perineoplasty).

narrowing of the introitus may occur that make coitus difficult or even impossible. All of these conditions can only be solved surgically. Changes in sexual ability among patients with lichen sclerosus seem to depend on the degree of the illness. The adhesion of the fourchette causes repeated tearing during sexual intercourse. The stenosis of the opening may make coitus difficult or impossible. These situations are determinant in the reduction of coital frequency, dyspareunia, or apareunia (4).

In the case presented here, the synechia was located in the vagina, almost 2 cm behind the introitus. The fourchette was appearing normal.

Surgery is contraindicated as a primary treatment of uncomplicated lichen sclerosus (5). Surgery is reserved for the correction of introital stenosis, synechia of the labia minora and the fourchette, the periclitoral pseudocyst, or when there is an association with vulvar intraepithelial lesions (VIN) or vulvar cancer. Stenosis of the vulvar introitus, labial and the fourchette synechia, and the smegmatic pseudocyst often require surgical correction. Stenosis of the vulvar introitus can be corrected through vulvoperineoplasty (6). Vaginal dilation and corticosteroids will be needed after the operation (6).

There were two major points making this case interesting. The location of the synechia was behind the introitus, in the vagina. The second important fact was the presence of the pelvic cyst in the lower pelvis. The surgical correction of the case was similar to the technique of vulvoperineoplasty but the pitfall of the correction was the identification of the vaginal mucosa after dissecting the synechia. Later the mucosa was connected to the vulvar skin with separate sutures. The postsurgical corticosteroid treatment and the regular dilatation of the introitus should be kept in mind to prevent the restenosis.

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