

# Lichen Sclerosis with Rare Complications: Two Case Reports

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## ABSTRACT

Lichen Sclerosis is a chronic, progressive, atrophic, sclerosing process involving glans and prepuce. Cause of the disease is unknown. It occurs between 20 - 65 years of age. It manifests usually as atrophic patches, plaques. In severe cases waisting, effacement or muzzling are seen. It can lead to complications like meatal stenosis, urethral stricture and rarely carcinoma. Case one presented with lichen sclerosis complicated by squamous cell carcinoma and second case presented with urethral stricture. These two cases are being presented because of its rarity and these are likely to be missed. The patients were referred to surgery and urology depts respectively for further management.

**Keywords:** Lichen sclerosis, waisting, effacement, muzzling

## INTRODUCTION

Lichen Sclerosis (LS) is a chronic, progressive, atrophic, sclerosing process involving glans and prepuce.<sup>[1]</sup> Etiology of the disease is unknown.<sup>[2]</sup> It occurs between 20 – 65 years of age.<sup>[3]</sup> Incidence of LS is 14/1,00,000 persons/year.<sup>[5]</sup> It may be asymptomatic or it may present with itching, burning, narrow stream of urine or difficulty in sexual intercourse. It can manifest initially as erythema but later porcelain white macules, papules and sclerotic plaques are found.<sup>[6]</sup> Older lesions become depressed. It manifests as atrophic white patches or plaques but occasionally with telangiectasia and sparse purpura. Some patients may have hemorrhage, bulla, erosion or ulcer.<sup>[1]</sup>

Initial lesions are replaced by sclerosis and can lead to complications like meatal stenosis, urethral stricture and rarely carcinoma. Whereas the general incidence of carcinoma in LS varies between 4-9.5%,<sup>[4]</sup> carcinoma complicating LS constitutes 1/3rd of all penile cancers.<sup>[5]</sup>

The striking histological feature is band of hyalinization of collagen below the epidermis which appears structure less, edematous and contains sparse cells with dilated capillaries.<sup>[2]</sup> Two such case reports are here with presented, one with rare clinical manifestation of hemorrhagic bulla and complication of urethral stricture and another with carcinoma.

## CASE REPORTS

### CASE 1

A 63 year old male patient noticed an asymptomatic white patch on glans penis offive month's duration. It gradually increased and occupied entire glans. Later on, an elevated painful lesion appeared on inner aspect of prepuce. There was no history of bleeding or trauma. He was not a known diabetic or hypertensive. He gives past history of surgery for impacted urinary calculus and an artificial urinary meatus was created underneath the glans five years back. He gives personal history of having had multiple

premarital exposures with two contacts which were unprotected and no extra marital exposures. He was a known smoker or alcoholic. On examination he was found moderately built and moderately nourished and was anaemic. Vital data was within normal limits.

On examination, prepuce was found adherent to the glans covering the corona glandis from 3 o'clock position to 7 o'clock position. Urinary meatus was found on ventral aspect of glans penis. There was a shiny depigmented patch on glans. A single indurated non tender white plaque with rough surface was found on inner aspect of prepuce extending on to the glans adjacent to the meatus [Figure 1]. There was no significant inguinal lymphadenopathy. There were no other systemic abnormalities. Complete blood picture and urine analysis were within normal limits. Venereal disease research laboratory test (VDRL) test was non-reactive.

Histopathology showed strips of hyperplastic stratified squamous epithelium, foci of moderate to severe dysplasia and squamous pearls suggestive of squamous cell carcinoma [Figure 3]. A final diagnosis of Lichen sclerosis with squamous cell carcinoma was made.

## CASE 2

A 50 year old male patient presented with an asymptomatic patch and a blister around urinary meatus of 30 days duration. Ten days later he developed narrow stream of urine. There was no history of bleeding or trauma. He was not a known diabetic or hypertensive. He had undergone circumcision 10 years back. He has been a smoker. There was no history of high risk behaviour. General examination and vital data were within normal limits.

On examination penis was found circumcised. An erythematous, indurated, non-tender plaque surmounted by hemorrhagic bulla was present around urinary meatus [Figure 2]. A cord like thickening of distal 3 cm of urethra was present. Bilateral, multiple, discrete non tender inguinal lymph nodes were palpable. There were no systemic abnormalities. Complete blood picture and urine analysis were within normal limits. VDRL test was non-reactive.

Histopathology showed strips of hyperplastic stratified squamous epithelium, sub epithelial haemorrhage and in dermis nonspecific inflammatory cells were present. No specific diagnosis was pronounced by pathologist.

FNAC of lymph nodes showed nonspecific inflammatory reaction and no malignant cells. A clinical diagnosis of Lichen Sclerosis with urethral stricture was made.



**Figure 1:** Shiny depigmented patch on glans and indurated plaque with rough surface on prepuce extending on to the glans near meatus



**Figure 2:** Indurated plaque with haemoragic bulla surmounting the meatus



**Figure 3:** Foci of moderate to severe dysplasia and squamous pearls

## DISCUSSION

Lichen Sclerosis (LS) manifests as atrophic white patches or plaques but occasionally with telangiectasia and sparse purpura. Some patients may have hemorrhage, bulla, erosion or ulcer.<sup>[1]</sup> Some of the above said clinical picture present in these two cases. The clinical manifestation of haemorrhagic bulla which is an unusual manifestation was present in one of the present cases.

Diagnosis of LS in these two cases is mainly done by clinical findings and histopathology. But, in one case though histopathology showed nonspecific inflammatory reaction, clinical manifestation of atrophic plaque and haemorrhagic bulla clinched the diagnosis. In other case, histopathology showed evidence of squamous cell carcinoma which is a rare complication.

The time taken for the development of the most common complication i.e., urethral stricture is not mentioned in the literature where as that of carcinoma ranges between 10-30 years.<sup>[7]</sup> Though the symptoms related to complications in the present cases are of short duration, the pathological process could have started earlier. But because of factors like lack of intelligence, observation and ignorance of the patient, the time interval between initial changes of LS and complications cannot be assessed here, unless it is a prospective study. The complications of LS have profound effect on patient's life and also determine the type of treatment. LS is likely to be missed because "genital examination" is often incompletely performed by many doctors.

The purpose of presenting these two cases is

1. To enlighten the young dermatologists about lichen sclerosis and its complications.
2. To highlight importance of thorough genital examination.
3. To ignite discussion among senior physicians.

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