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Acute Lichen Sclerosus in a 25 Years Young Female- A Case Report

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Abstract:

Lichen sclerosus (LS) is a disease of unknown cause that results in white patches on the skin, which may cause scarring on and around genital skin[1]. Several risk factors have been proposed, including autoimmune diseases, infections and genetic predisposition[2,3]. There is evidence that LS can be associated with thyroid disease[4]. Women are more commonly affected than men (10 to 1 ratio), particularly prepubertal girls and after menopause. The condition most commonly occurs on the vulva and around the anus with ivory-white elevations that may be flat and glistening. There may be marked itching or the condition may be without any symptoms. There may also be thinning and shrinkage of the genital area. This condition is presented here as an younger woman presented with acute form of lichen sclerosus.

Introduction:

Lichen sclerosus is the commonest non neoplastic epithelial vulval disorder[5,6]. It is most often seen in post menopausal women but can occur in young women [7,8,9]. It appears as white, glistering sheets with clearly defined margins and involves the labia, the perineum and the perianal region[10,11,12]. There may also be thinning and shrinkage of the genital area that may make coitus, urination, and defecation painful. Lichen Sclerosus is not contagious; it cannot be caught from another person[13]. Although it is not clear what causes LS, several theories have been postulated. Theories are genetic, autoimmunity, infection, hormones and local skin changes. Lichen sclerosus may have a genetic component. Higher rates of lichen sclerosus has been reported among twins [14,15] and families[16]. Autoimmunity is a process in which the body fails to recognize itself and therefore attacks its own cells and tissue. Specific antibodies have been found in LS. Furthermore, there seems to be a higher prevalence of other autoimmune diseases such as diabetes mellitus type 1, vitiligo and thyroid disease[17]. Both bacterial as well as viral pathogens have been implicated in the etiology of LS. A disease that is similar to LS, acrodermatitis chronica atrophicans is caused by the spirochete *Borrelia burgdorferi[18] evidenced by investigation*. Viral involvement of HPV[19] and hepatitis C[20] are also suspected. Since LS in females is primarily found in women with a low estrogen state (prepubertal and postmenopausal women), hormonal influences were postulated. To date though, very little evidence has been found to support this theory. Some findings suggest that LS can be initiated through scarring [21] or radiation,[22,23] although these findings were sporadic and very uncommon. A biopsy of the affected skin is often done to confirm diagnosis.

There is no definitive cure for LS[24]. Behavior change, such as good hygiene and minimizing scratching of the affected area, is an important part of treatment[25]. LS is also usually treated with potent topical steroids, like clobetasol propionate or mometasone furoate[24]. These can relieve symptoms and prevent scarring[26]. However, LS is a chronic disease so topical steroids may need to be continued as maintenance therapy[27].

Case report:

A 25 yrs old multiparous lady from low socioeconomic family was admitted in Institute of child and mother Health on first week of october 2013 with the complaints of itching of the vulva and gradually whitening of vulval skin for last three months. She also complained of cracking in the lesion after intercourse which become painful but healed spontaneously.

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She has no history of diabetes mellitus, eczema or any other medical, surgical or skin diseases. She had history of taking ciprofloxacin, metronidazole and topical antifungal ointment 15 days back.

She has regular cycle of average flow and duration. On admission, patient was healthy with average built, wt-52kg, mildly anaemic and normotensive. No abnormality was detected on systemic examination.

Local examination of vulva revealed multiple whitish area of variable in size and shape in upper part of inner aspect of left side of labia majora (1.5cm x 1.25cm), middle part of inner aspect of right side of labia majora (3cm x 2cm), lower part of labia majora covering the perimum (2cm x1.5cm).Vagina, cervix and uterus were healthy.

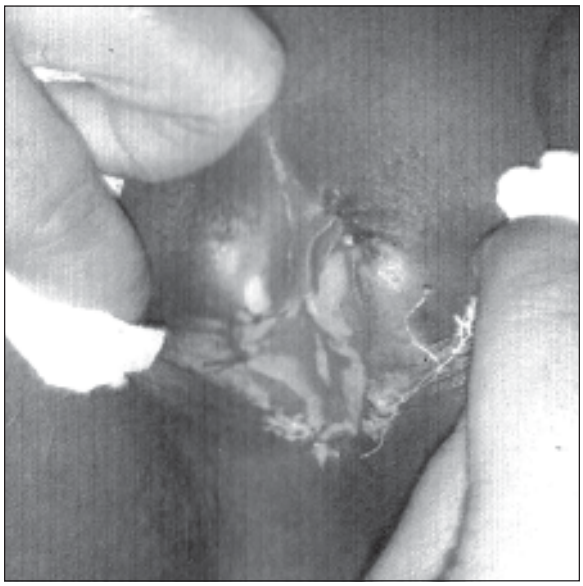

Figure: *Lichen Sclerosus of Vulva*

All investigation reports were within mormal limit, blood group is 'A' positive. Multiple wedge biopsy were taken and histo pathological examination report was Lichen sclerosus of vulva.

General management was -to avoid the use of local cosmetics, to use non irritant soap and dry carefully without rubbing, to use cotton underwear or nothing at all. Topical use of clobetasole propionate 0.05% was advised to apply at night daily for 1 month followed by alternate night for the 2nd month and there after twice weekly for 1 month along with oral antihistamine as specific management.

Patient was discharged four days later with advice to come for follow up at 15 days interval for 3 months.

Discussion:

Lichen sclerosus et atrophicus was first described in 1887 by Dr. Hallopeau [28]. Since not all cases of lichen sclerosus exhibit atrophic tissue, *et atrophicus* was dropped in 1976 by the International Society for the Study of Vulvovaginal Disease (ISSVD), officially proclaiming the name *lichen sclerosus* [29]. Lichen sclerosus was most commonly observed in postmenopausal women (18, 69.2%), followed by women in reproductive age group (5, 19.23%), and prepubertal girls (3, 11.5%). All patients presented with ivory white atrophic plaque similar to this patient.Warmth and moisture, chronic mechanical irritation, deficiency of iron, vit A, folic acid, vit B_{12}, riboflavin and other essential factors are responsible for this changes[30,31]. Female genital lesions may be confined to the labia majora but usually involve and eventually obliterate the labia minora and stenose the introitus. Often, an hourglass, butterfly, or figure-8 pattern involves the perivaginal and perianal areas, with minimal involvement of the perineum in between. Only labia majora was involved in this case. Presentation of lichen sclerosus may be acute-manifestated by erythema and odema of vulval skin, lichenification, hyperkeratosis, erosion/ulceration and subepithelial haemorrhages.

Presentation of chronic lichen sclerosus are- wrinkled, white skin appearance, agglutination of labia minora and clitoris, introital stenosis, involvement of the perianal region. This patient had similarity with acute presentation. Cclobetasol propionate was prescribed for three months and asked for follow up. In case of poor response long-term antibiotic will be followed. Another small study has shown long-term antibiotic treatment to be effective in patients who had poor response to steroids [32].

Lichen sclerosus usually does not cause skin cancer. However, skin that is scarred by lichen sclerosus is more likely to develop skin cancer. The high rate of squaneous cell carcinoma in women with lichen sclerosus in 3-5% cancer develop mainly in women who continue to suffer from vulval itching or neglect treatment[33].

Conclusion:

Lichen sclerosus is one of the premaligmant condition of the vulva specially in presence of scarring. This patient recieved effective treatments within three months of the appearance of the disease there is very

little chance of developing malignancy but follow up every six to 12 months is necessary.

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