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Skin disorder mistaken for child sexual abuse; prepubertal lichen scleroatrophicus with genital and extragenital involvement - A case report

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ABSTRACT

Lichen scleroatrophicus (LS) is a chronic, progressive, inflammatory dermatosis of the skin and mucous membranes, initially characterized by ivory-colored, oval and sharply demarcated papules, plaques and atrophy. The cause of the disease is still unknown, although autoimmune, genetic, hormonal and infectious factors are to blame. The disease is usually anogenital in childhood. Extragenital placement is very rare during this period. The abrasive appearance can be confused with child abuse, especially in genital LS. In this article we present a 4-year-old girl case with genital and extra genital LS lesions.

Key Words: Skin diseases, lichen scleroatrophicus, child abuse, female, genital diseases.

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Introduction

Lichen scleroatrophicus (LS) is a chronic inflammatory disease of the skin and mucosa. Although it is usually seen in the anogenital area, it can affect all areas. LS is generally seen in women, especially in prepubertal and postmenopausal ages [1]. LS may be asymptomatic, but usually presents with itching, pain, burning sensation in the perineum, constipation, or urinary symptoms. The presence of ecchymosis and bleeding lesions due to itching may increase the suspicion of sexual abuse. The most prominent pathognomonic feature is the appearance of a depigmented lesion in the shape of "figure 8" in the anogenital area [2].

Histological findings of LS include atrophic epidermis, orthokeratotic hyperkeratosis, vacuolar degeneration of the basal layer, edematous and sclerotic papillary dermis, as well as lymphohistiocytic leaks in the middle dermis [3]. Maintenance of chronic inflammation can lead to deterioration of normal anatomical structures, sensory and psychosexual problems, especially in adults as result can cause squamous cell carcinoma. Early recognition of the lesion and rapid treatment management are very important in preventing long-term complications [4]. In this study, we present a 4-year-old girl case who suffered from LS of the anogenital and extra genital region.

Case report

A 4-year-old girl admitted to the dermatology department for itching and ecchymosis in the anogenital region, and two asymptomatic white plaques on her back. Mother of the case stated that her daughter's complaints first started as itching in the genital area when she was 2 years old, and after a few months, itchy white spots appeared on her back and shoulder. Dermatological examination revealed two atrophic plaques of 3x3 cm in the lateral of the left scapula and 0.5x0.5 cm on the lumbar region, with central white surrounded by a violet discoloration (Fig. 1A, B and C**)**.

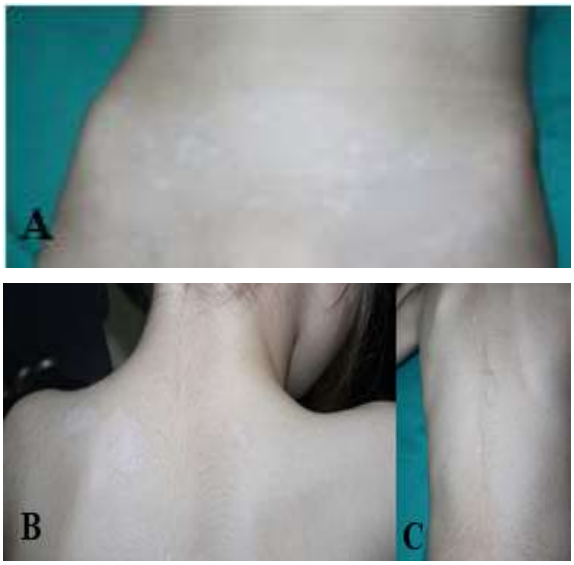

Fig. 1A, B and C. Guttate white patch lesions on the shoulder back abdomen, labium in the genitals, ivory-colored sclerotic atrophic plaque on the inner surface, sclerotic white plaque progresses towards the anus.

A classic "figure 8" pattern was observed, involving the labia minora, clitoral hood, and perianal region (Fig. 2A, B**).** No pathological finding was found in her systemic examination. Biochemistry and complete blood count values were within normal limits. Biopsy was taken from the patient's atrophic lesion located on the scapular region. Histopathological examination

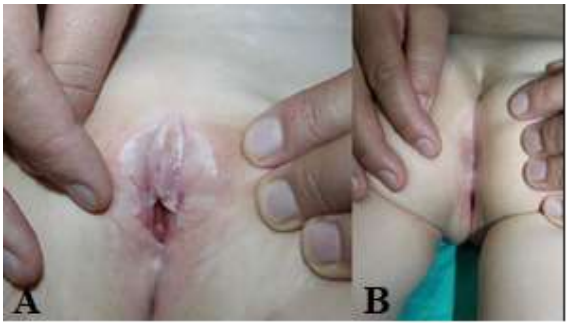

Fig. 2A and B. Classic "figure 8" pattern was observed, involving the labia minora, clitoral hood, and perianal region.

revealed hyperkeratosis in the epidermis and loss of rete edema in the papillary dermis with collagen homogenization, and an underlying lymphocytic infiltrate (Fig. 3).

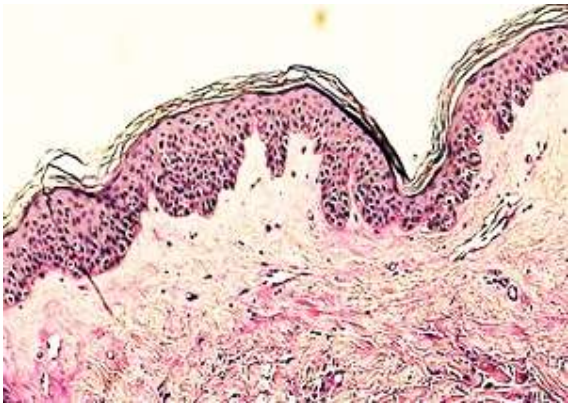

Fig 3. Hyperkeratosis in the epidermis and loss of rete edema in the papillary dermis with collagen homogenization, and an underlying lymphocytic infiltrate (H&E x 100).

Findings were consistent with LS. A 4-week course of twice daily topical 0.05% clobetasol propionate ointment and topical tacrolimus 0.1 ointment was given. At a 4-week follow-up visit, it was observed that the patient's lesions regressed moderately.

Discussion

LS can be clinically confused with lichen planus, cicatricial pemphigoid, lichen simplex chronicus and morphea. LS may also involves the upper trunk, face, neck, navel and flexor

sides of the wrists. However, reports of extragenitally located cases in the childhood age group are very rare. Hormonal factors possibly play a role in the pathogenesis of LS, but this theory need still to be proven. Immunological diseases such as Hashimoto thyroid disease, alopecia areata and vitiligo have been found to be associated with LS [5]. We actively screened our patient for autoimmunity, and we found no evidence for these diseases in our analysis.

Most affected children have an uncomfortable itching and pain in the vulvar area. The symptom can worsen at bedtime and genital rubbing at night can cause fatigue and agitation in children during the day. Some children have dysuria or constipation, which may be associated with painful fissure in the anogenital area as their main complaint [6].

In LS appearance of the lesions are usually very characteristic, the atrophic skin is often fragile and can be easily peeled off, which can lead to superficial abrasions and punctate bleeding. Especially in the initial phase of the lesions the presence of erosions secondary to itching and the absence of sclerosis may suggest as child abuse. This complicated situation may cause misunderstanding and then patients can be referred for sexual abuse examination. It must notice that, the presence of lichen sclerosus does not preclude the coexistence of sexual abuse, for this reason detailed history and physical examination are required to rule out the possibility [7-9].

In our case, besides the genital involvement, the extragenital involvement helped to facilitate the diagnosis of LS. Thus, we excluded sexual abuse in our case with both a history and a clinical and histopathological findings.

First-line therapy includes patient education and super-potent topical corticosteroids most commonly clobetasol propionate ointment. Topical tacrolimus 0.1%, topical testosterone 2%, and phototherapy are other options for. The potential advantage of these new drugs is that they do not inhibit collagen synthesis thus, they can be used safely in pediatric LS patients without causing dermal atrophy [10]. Surgical treatments such as cryotherapy and laser should be reserved for symptomatic patients who have adhesions or do not respond to more than one medical treatment [11]. However, there is no fully standardized treatment. Clinical signs are not easy to fully resolve and return to normal skin texture and color, but therapy can help relieve symptoms and prevent further progression. Patients should be advised to use the emollient as a barrier and soap substitute and to avoid from mechanical triggers [12]. Here, we shared the good response of our patient who presented with prominent lesions to the first-line topical treatment. LS usually improves in adolescence, but can continue into adulthood, at least until adolescence, the patients must observe with regular follow-up.

Conclusions

In conclusion, anogenital LS in children is a rare diagnosis mostly seen in girls. When a child presents with unexplained genital injury or bleeding this situation may be confused with sexual abuse. Vulvar itching and constipation due to LS can be seriously the most disturbing feature and therefore delay in diagnosis is a major problem. Increased awareness of childhood LS in primary care will reduce diagnostic delays in the disease.

Compliance with ethical statements

Conflicts of Interest: None.

Financial disclosure: None.

Consent: Patient confidentiality has been maintained and written informed consent was obtained from the patient's parent for the publication of the case report and the

accompanying images and can be provided as required.

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