Lesson of the Week

Lichen sclerosus et atrophicus in children misdiagnosed as sexual abuse

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The growth in public and professional awareness of the sexual abuse of children has led to an increase in the number of such cases being presented to paediatricians.^{1,2} About a third of sexually abused children present with evidence of physical trauma,³ and the possibility of sexual abuse should be considered in all children who present with unexplained genital injuries. Erroneous investigation of sexual abuse is disturbing, however, for the child and family, particularly close male relatives, who are the most likely perpetrators,⁴ and medical staff should learn to recognise conditions that may mimic sexual abuse and thus avoid false accusations.

We report on two girls suffering from lichen sclerosus et atrophicus who were thought to have been sexually abused.

Case reports

CASE 1

A 4½ year old girl was referred to a paediatrician with vulval purpura. Haemorrhagic blistering, sometimes with pain, had been noted over the preceding six months. The only medical history was of vulvovaginal warts two years previously. The possibility of sexual interference was suggested to the parents, but this aroused hostility and a solicitor's demand for an apology.

At initial presentation the predominant feature was purpura, which affected much of the vulva (fig 1). The patient was admitted to hospital and was seen by a dermatologist, who noted that the vulval skin and labial mucosa were white and wrinkled as well as being purpuric. During an examination under anaesthesia, which showed an intact hymen, a biopsy specimen was taken that confirmed the clinical diagnosis of lichen sclerosus et atrophicus.

CASE 2

A 5½ year old girl was referred to a paediatrician because of a bruise over her pubic symphysis, an old bruise on her thigh, and excoriated, swollen labia minora with a purulent, bloodstained discharge but an intact hymen (fig 2). Medical attention had been sought about six months previously for a vulval injury that she had apparently incurred by falling off a bicycle. Neither parent was able to suggest how these lesions had originated, although she had been playing with some boys in a nearby wood. The patient herself volunteered no explanation.

Vaginal swabs taken on admission grew group B haemolytic streptococci

The features of lichen sclerosus et atrophicus may be mistaken for signs of sexual abuse in children. All medical staff should learn to recognise this and other conditions that may mimic sexual abuse

FIG 1—Vulva of patient in case 1 at diagnosis. Note extensive ecchymosis on the labia minora, which was assumed to be due to trauma. (Reproduced by permission of the editor of the *British Journal of Dermatology*.)

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and *Candida albicans*, which were treated. She remained on the ward for four days, pending full police and social investigation of her family and contacts. This investigation found no explanation for her lesions, and after a case conference she was discharged home with continuing social work support.

Five weeks later she was readmitted with a recurrence of perineal discomfort. Examination again showed a combination of haemorrhagic

ulcers and apparent lacerations. No explanation was offered, and her mother did not seem concerned about this recurrence. A dermatologist noted the clearly demarcated white plaques on the vulva, with atrophic labia minora. These findings were thought to be typical of lichen sclerosus et atrophicus, and she was discharged home using topical hydrocortisone cream.

FIG 2—Vulva of patient in case 2 at initial presentation. Note characteristic pearly white plaques inferior and adjacent to excoriated area on both sides.

Discussion

The first description of the battered child syndrome led to a substantial increase in the recognition of this important and distressing condition.⁵ Medical conditions that may give rise to misdiagnoses have been recognised increasingly and include osteogenesis imperfecta, scurvy,⁶ bleeding disorders, and mongolian blue spots.⁷ The general reaction to the sexual abuse of children is even greater than that engendered by physical abuse,⁸ and the emotional consequences of misdiagnosis are thus likely to be more severe. Police or social work investigations put considerable

stress on relationships within the family. Should the investigation fail to identify a perpetrator, continuing suspicion may cloud both parent-child and interparent relationships. There are as yet no reports of the long term consequences of such misdiagnoses, but the potential for resentment towards medical staff is clear and understandable.

Lichen sclerosus et atrophicus is a condition of unknown aetiology that has been described most frequently in adult women.⁹ It is, however, well documented in children^{9,10} and is a recognised cause of phimosis in boys.¹¹ In all age groups the anogenital area is most often affected, though lesions may occur elsewhere.⁹ In Wallace's series of 50 prepubertal girls 42 had anogenital lesions.⁹ Initial misdiagnoses in this series included gonococcal vaginitis (one case), self mutilation (three cases), and sexual abuse (one case); a contemporary series might include a much higher incidence of suspected sexual abuse.

The appearance of thinned skin with erosions and purpura may be mistaken for trauma unless the well demarcated borders of the atrophic plaques are noted. Furthermore, affected areas are susceptible to trauma, and minor injuries may result in haemorrhagic, vesicular, and bullous lesions. Secondary infection is common and may obscure the diagnosis, which can be confirmed by biopsy. Symptoms may be treated with topical glucocorticoids. In most girls the condition resolves at or by the menarche, although deterioration at this time has been recorded.¹⁰

Lichen sclerosus et atrophicus was not mentioned in a recent study of sexual abuse in children or in a study of premenarcheal girls with vulvovaginitis.^{3,12} All medical staff caring for children should learn to recognise this condition; no doubt there will soon be reports of other conditions that may cause similar confusion.

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A middle aged woman with manic depression well controlled by lithium treatment flew to Canada, where salt fish formed a prominent part of her diet. She became depressed. Would changing concentrations of lithium because of these two factors have made her more vulnerable to a relapse?

Rapid time zone changes have been associated with the occurrence of psychiatric illness. A study of passengers arriving at Heathrow Airport showed differences in patterns of psychiatric illness depending on the directions of their flights.¹ Depressive illness occurred more commonly in passengers who flew from the east (time change more than two hours), whereas those who took west to east flights were more likely to suffer from mania. The author suggested that this might be related to the disturbances in the circadian rhythms of cortisol and melatonin that have been observed in depressive patients. East to west time zone changes are associated with retardation of phase in the sleep-wakefulness cycle, which is also observed in depressive illness, and a phase advance in this cycle has been shown to be of therapeutic benefit. The patient concerned experienced a shortlived depres-

sive episode after a flight from the United Kingdom to Canada. She also had a change of diet with salt fish forming a prominent part. This increased intake of sodium may have contributed to the depressive relapse by possibly increasing the clearance of lithium, which would result in its serum concentrations falling to subtherapeutic values. Sodium and lithium ions compete for the same cellular transport mechanisms including their absorption by the renal tubular system. Sodium enriched diet leads to increased lithium clearance.² Moreover, increased sodium concentrations in extracellular space might activate the sodium pump, leading to a decreased lithium concentration in the intracellular space, and it has been shown that an increased ratio of red blood cell:serum lithium is associated with a good response to lithium.—M T ABOU-SALEH, senior lecturer in psychiatry, Liverpool.

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