demonstrated by scanning electron microscopy how the hairs were rolled like a sleeping serpent in the follicle under the stratum corneum. The extracted hair had a normal appearance of the hair cuticle. The hairs of our patient were often rolled and the free part was sometimes coiled like a spiral when seen by the naked eye. It was, however, also markedly twisted in a spiral around its own axis thus making the surface abnormal (Fig. 4).

Amino acid analysis showed that the spiral hairs had less cysteine than the normal appearing hairs on his body. A decrease of cysteine in scalp hair and of cystine in urine could indicate a deficiency of amino acids. A decrease of such sulfur containing amino acid has been observed in patients with trichothiodystrophy with neuroectodermal symptoms (7). Urine analysis of such patients are however normal. The normal appearance of the patients scalp hair could be due to the finding that the cysteine decrease here was compensated by an increase of threonine which is also rich in sulfur.

REFERENCES

Sheet Dermatitis

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A characteristic dermatitis with skin-coloured or erythematous papules localized to the helices and lobes of the ears and to the skin behind the ears was observed in 25 subjects who had been using new, unwashed sheets and pillow-cases containing permanent-pressing resin. Key words: Ear dermatitis; Sheet; Permanently-pressed textiles; Fixapre CPNS; Dimerhy/ol-dihydroxy-ethylene-urea. (Received October 10, 1984.)

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Dermatitis from permanently-pressed coloured sheets and pillow-cases afflicting the present author was described in 1971 (1), and in 1971 and 1972 there was an explosive outbreak in Canada of dermatitis following exposure to certain brands of coloured, permanently-pressed sheets produced by a particular manufacturer (2, 3). The morphology and distribution of the rash was clinically unusual and strikingly specific: follicular papules on extremities and trunk, and, in approximately 75 %, characteristically also on the helices and lobes of the ears. A couple of years later a similar dermatitis, “Canadian sheet dermatitis”, was reported in England in 9 patients who had bought brightly coloured, cheap, Canadian bed sheets in street markets or from dealers (4).

Since the introduction of permanently-pressed coloured sheets on the Scandinavian market in the early seventies we have seen more than 25 patients with a similar and characteristic clinical picture. All had used new, unwashed, permanently-pressed sheets
Fig. 1. Skin-coloured papules localized to the helix and to the skin behind the ear.

Fig. 2. Skin-coloured papules on the cheek.

and pillow-cases shortly before the dermatitis appeared. The findings in the first 25 patients are now presented.

PATIENTS AND METHODS

Clinical findings

Most patients were young (9–36 years of age), and about two-thirds were women. Two had had atopic eczema during early childhood and 1 patient had psoriasis. None of the others had previously had any skin disease. None of the patients had taken any drugs. Patients presented sporadically over a period of several years, but only 1 was seen during the summer months. In no case were family members or neighbours affected.

The clinical picture was similar and characteristic in all patients, with monomorphous, rather discrete, skin-coloured or slightly erythematous papules 1–3 mm in diameter. In some the papules resembled urticae, and 1 patient had a bright red papulo-vesicular eruption. The papules were localized very characteristically to the helices and lobes of the ears and to the skin behind the ears (Fig. 1), and the cheeks and sides of the neck were often also involved (Fig. 2). A few patients had papules also on the arms. The distribution of the lesions was usually symmetrical. The papules were slightly to moderately itching, but some patients complained instead of a burning sensation. The patients were otherwise healthy, and had no constitutional symptoms, fever, or adenopathy.

Punch biopsy was performed in 6 patients. The histological changes were discrete, with normal or slightly spongiotic epidermis and minimal lymphocytic infiltration round the capillaries in the upper and middle dermis.

Relation to exposure to sheets

The dermatitis started in all cases 1–5 days, and in most cases 1–2 days, after sleeping on new, unwashed, permanently-pressed (non-iron, easy care, easy press) cotton sheets and pillow-cases
which were always dyed, either plain or, more often, in garish abstract or floral patterns. The sheets were manufactured by several different companies. Some were made by Swedish companies, but imported products were also involved. The sheets had usually been purchased cheaply at supermarkets. Some patients had never before used permanently-pressed sheets, whereas others had used such sheets of various kind without getting dermatitis. Most patients said that the textiles in question were hard, stiff and uncomfortable to the touch.

Suspecting a connection between the dermatitis and the new sheets, some patients changed sheets after a couple of nights, but even so there was sometimes slight progression of the dermatitis over the following days. However, after discarding the new sheets the dermatitis always disappeared completely within a week. A few patients continued to sleep on the offending sheets, however, but here again the eruption disappeared after a little more than a week. No sheet dermatitis was observed in persons using new sheets that had been washed before use. Even though more than one member of the family had used identical new sheets, as a rule only the patient was affected by dermatitis.

Patch tests with the sheets produced negative results in 5 of 6 patients tested. One patient reacted with small red papules at the test site. Some patients were asked to sleep again on their still unwashed sheets after the dermatitis had cleared up: this time the facial lesions could not be provoked. Patch tests with formaldehyde were negative in all people tested. One patient reacted to dimethylol-4,5-dihydroxy-ethylene-urea but was negative to other dimethylol compounds (1), as were all the other patients tested.

COMMENTS

All patients with the characteristic dermatitis described had thus been exposed to new, permanently-pressed, unwashed sheets and pillow-cases one to a couple of days previously.

The dermatitis is probably connected in some way with the permanent-press procedure. To produce the desired effect dimethylol-4,5-dihydroxy-ethylene-urea (Fixapret CPNS), which is formaldehyde releasing, is commonly used. Only 1 out of 6 patch-tested patients reacted to Fixapret CPNS; none reacted to formaldehyde, which has often been blamed for textile dermatitis. Patch tests with the patient's own sheets produced negative results in 5 out of 6 patients. The test results do not support a delayed type of allergic reaction as the cause of the dermatitis. The resin may have acted as a chemical irritant. However, patch tests did not give any toxic reactions. Alternatively, textile fibres hardened by the resin may have acted as a mechanical irritant, and in fact the clinical picture had some features reminiscent of glass-fibre dermatitis. "Multiple-application delayed-onset contact urticaria" has also been suggested as a possible explanation to textile intolerance (5).

"Canadian sheet dermatitis" differed from the dermatitis now described. In the Canadian patients the symptoms were more pronounced, and the time of exposure to the sheets had always been at least 10 days, implying a delayed type of hypersensitivity reaction. Washing the sheets 3 or 4 times did not necessarily prevent the reaction. Furthermore, discarding the sheets did not immediately result in improvement, and the symptoms sometimes persisted for up to 8 weeks (2). The offending agent in the Canadian cases was later shown to be a fragmentation product of permanent-press resin polymer that was rendered unstable in the presence of heat and moisture (4, 6).

Despite differences between Canadian and European sheet dermatitis the morphology of the lesions was much the same, with characteristic involvement of the helices and lobes of the ears; this was seen in 75% of the Canadian patients and in all of ours. Sheet dermatitis is probably common, but even if the sufferers suspect a connection between the rash and their new sheets, not all will go to the doctor because the symptoms are mild. Shop assistants often know that some individuals cannot tolerate new, permanently-pressed sheets, and sheet manufacturers have had complaints from customers.

The pathogenesis of the sheet dermatitis described remains obscure. It is peculiar with regard to the clinical picture and to the fact that the lesions cannot be reproduced.
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Cutaneous Nasociliary Neuralgia
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Lambert WC, Okorodudu AO, Schwartz RA. Cutaneous nasociliary neuralgia. Acta Derm
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Nasociliary neuralgia has not to our knowledge been linked with inflammatory cutaneous
lesions. We observed the phenomenon and postulate that it may be frequent but over­
looked. Key words: Acne; Neurocutaneous syndromes; Inflammation. (Received October
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A number of overlapping syndromes and neuralgias of nasal headaches have been described
(1). Referred pain is an important feature of many of these entities, with the complex and
variable courses of cutaneous sensory nerves in the region of the nose, eyes, eyelids and
sinuses playing a prominent role (1). The nasociliary branch of the ophthalmic division of
the trigeminal nerve, for example, innervates both eye and skin: cutaneous vesicles of
herpes zoster on the tip of the nose often herald ophthalmologic herpesvirus infection (2).

REPORT OF A CASE
We recently observed a 42-year-old male who complained of a severe, constant pain localized to his
left eye and periorbital region which gradually built up over a 12-hour-period. A clinical diagnosis of
incipient herpesvirus infection was entertained. However, at 18 hours, a typical acneiform papule of
the skin just anterior to the left ala nasi, which had developed simultaneously with the pain but which
had been previously ignored, underwent spontaneous rupture, with instantaneous clearing of all
symptoms. The region of the tip of the nose had not been notably painful during the episode. The
symptoms have not recurred and there have been no sequelae or recognizable eye pathology.

DISCUSSION
Nasociliary neuralgia was defined by Charlin in 1931 (3) and is sometimes referred to as
Charlin’s syndrome. It links unilateral oculoorbital neuralgia with a number of changes not
observed here, especially rhinitis with excessive rhinorrhea and ocular inflammation (1, 3).
The process observed here has also some similarity to the anterior ethmoid nerve syn­
drome described by Sluder in 1922 and originally termed by him “nasociliary neuralgia”