

CONTACT DERMATITIS IN GENERAL PRACTICE

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SKIN diseases form a large part of a family doctor's work, and about one-tenth of consultations are concerned with them (Grant, 1962). Infective conditions are most frequently met with but the eruptions of the eczema-dermatitis type are nearly as common, and often much more difficult to deal with. Many of these are of uncertain origin, or are influenced by a variety of constitutional and psychological factors. But a large proportion, possibly one-quarter, are cases of contact dermatitis, that is, they are acute inflammatory diseases of the skin caused by contact with an irritant (Wilkinson, 1962). Unless these are correctly diagnosed and the offending irritant is identified and excluded there is little hope of successful treatment.

Contact dermatitis may be caused by a large variety of substances, which may act either as primary irritants (i.e. they will irritate anyone's skin if applied in sufficient concentration), or as sensitizers, which produce an allergic reaction in susceptible subjects. While some irritants and sensitizers are found in nature (e.g. poison ivy, certain primulas), most of them are man made, and include many substances used in industry, in clothing, in cosmetics, in the home, and of course some are prescribed by the doctor. The problem of contact dermatitis is therefore likely to grow, as newer and more complex synthetic substances are introduced into our lives.

Different dermatologists will have different ideas of which are the most important irritants and sensitizers, whether they are nickel suspender buckles (Calnan, 1959), epoxy resins (Schwarz, 1957), detergents (Hodgson, 1953), clothes (Hill, 1959), or medicaments (Wilkinson, 1962). Since only selected cases are seen by dermatologists, a true picture of the relative importance of the various causative agents can only be found through a survey in general

practice. This study is an attempt to carry out such a survey, and certain tentative conclusions emerge, together with many interesting illustrations of the difficulties encountered in making such observations.

Method

Through the help of the Welsh Faculty of the College of General Practitioners, seven doctors in three practices were asked to keep records for one year (July 1961–June 1962). They were to record all cases of contact dermatitis, defined as “an acute inflammation of the skin thought to be due to contact with an external agent, and to be diagnosed by a history of exposure, by the distribution of the lesion, and if possible by a confirmatory patch-test”. The date of onset and of healing, and the patient’s age and sex were to be noted, as well as the site of the lesion and the presumed cause, but no attempt was to be made to distinguish primary irritants from sensitizers.

Results

On analysis, the main dermatitis hazards encountered could be roughly subdivided into groups.

Since the population covered by these three practices was just over 10,000, the incidence per 1,000 patients can easily be deduced.

	<i>No. of cases</i>
Dermatitis probably due to substances at work	24
Dermatitis in housewives, probably due to detergents	18
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Total ‘Occupational’ group	42
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Garments and fabrics	14
Nickel buckles and clips	8
Rubber in clothes and footwear	3
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Total ‘Clothing’ group	25
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Adhesive plasters	14
Other medicaments	11
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Total ‘Medicinal’ group	25
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Cosmetics	8
Plants	2
Sunlight	4
Doubtful and undiagnosed	9
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Total ‘Miscellaneous’ group	23
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Total Cases	115
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which gives a rate of ‘patients consulting’ of 11.5 per 1000. [c.f. rate of

patients consulting with dermatitis—12.1 per 1000 in *Morbidity Statistics from General Practice* (Logan, W. P. D. and Cushion, A. A. 1958).]

The ease and accuracy of diagnosis varies according to the type of suspected agent, and a few examples will be given from each group in order to illustrate the difficulties of making a diagnosis in this type of study.

The occupational group

1. A 59-year-old lorry-driver presented with dermatitis confined to his left palm, at the site of contact with the rubber grip of his gear-lever. Here the diagnosis can be confidently made on clinical grounds.

2. A 29-year-old engineer presented with an acute eruption on the radial borders of both forearms. Questioning showed that he had been using paint, and washing it off his skin with turpentine. Here the turpentine was considered the probable cause, although of course, the paint or some other substance at his place of work could be responsible.

3. A 50-year-old female hospital domestic worker presented with an acute rash on both forearms. She claimed that this was due to a new type of detergent used in her work—this was impossible to verify, and had to be accepted on trust.

Thompson (1958) described some of the difficulties in diagnosing industrial dermatitis. Many factors, e.g. ageing, fatigue, may affect the development of an eczematoid eruption in a worker, who may also be exposed to various irritants at home. The history given by the patient, who is not a trained observer, and in any case biased, is often valueless. The patient often does not know the exact nature of the irritant, but is inclined to blame his work for his skin condition, especially if he has been told about 'dermatitis' by others. Thus, many of the cases here tentatively diagnosed as contact dermatitis due to industrial irritants may well be non-specific eczemas, aggravated by friction, sweating and other factors at work. The same may be true of many of the cases here diagnosed as dermatitis due to detergents. In many cases, these are recurrent eruptions, patchy in distribution, and related to fatigue and anxiety. Hodgson (1963) considered many of them to be constitutional eczemas aggravated by local factors, rather than true contact dermatitis. This is true even when there is a positive patch-test, for reasons described below.

The clothing group

The diagnosis here is much simpler. Usually there is an acute eruption, continuous in extent, exactly coinciding with some article of clothing, and resolving rapidly when this is discarded.

A 5-year-old boy developed an acute eruption on the arms, back,

chest and axillae after his mother had brought him a new coloured shirt.

The typical pattern of nickel dermatitis is well documented (Calnan, 1959), with a primary eruption at the site of suspender buckle or brassière strap, but also of ear-rings, necklaces and watch-straps, and followed by secondary eruptions at distant sites.

The medicinal group

The adhesive plasters generally gave acute continuous eruption coinciding with the area covered, and were not difficult to diagnose. The other substances included ophthalmic preparations (2 cases), antiseptic lotions and creams (6 cases), local anaesthetic creams (2 cases), rubefacient cream (1 case), rubber contraceptive (1 case).

The difficulty of diagnosis here is illustrated by the case of an old lady (not included in the present series) whose intractable eczema of the hands and face was diagnosed as neurodermatitis caused by the stress of nursing her demented and bed-ridden husband. In fact, it was caused by the 'largactil' suppositories which she had to administer.

The miscellaneous group contains solar dermatitis (other than simple sun-burn) and cosmetics, such as perfume, hairdressings, sun-tan lotion, mascara.

Discussion

The largest group were eruptions apparently connected with work, either in industry or in the home. Because of the difficulties described, it is difficult to be certain that they were all true cases of contact dermatitis.

Contact dermatitis due to clothing was as common as that due to medicinal substances. The most important single agent in the clothing group is nickel, the most important medicinal substance is the adhesive (or other constituent) of adhesive plaster. This does not bear out the view sometimes expressed that antibiotics, sulphonamides, antihistamines, and other ointments prescribed by doctors are an important source of this disease. In fact, no evidence emerged from this study to show that serious skin trouble had resulted from any medicinal preparation.

In order to obtain a more accurate estimate of the incidence of contact dermatitis in the various age groups of either sex, a survey on a much larger scale would be required. Before such a study can be embarked on, various difficulties will have to be resolved.

1. A more adequate definition is required. It was pointed out by

Hodgson (1963) that the definition used in this study was not sufficiently precise, and should have excluded all patchy eruptions, which are mostly constitutional eczemas. He would define contact dermatitis as "an acute inflammation of previously healthy skin, involving the whole area of contact and showing erythema and oedema".

2. The diagnosis can often be made only by accepting the patient's uncritical story of exposure to irritants, with no possibility of an objective check. In this connection it was hoped that patch-tests would be of use, but authoritative opinion advises against them (Wilkinson, 1962; Hodgson, 1963). It seems that unless they are done by experts, they may produce false positive reactions. A substance which is not an irritant on ordinary contact may become one if applied in high concentration, in very intimate contact with the skin under an occlusive dressing.

3. Contact dermatitis is not a single disease, but a group of reactions at many different sites, caused by a variety of substances. Thus the number of possible subdivisions is very great compared with the total number of cases. The more precisely it is subdivided the more difficult it is to find enough cases for valid comparison between different age, sex and occupational groups.

4. The condition is often transient, not giving enough time for thorough assessment.

Summary

The incidence of contact dermatitis has been estimated over one year in a population of 10,000.

It is concluded that industrial and domestic irritants and detergents probably play the largest part, but that their study is too difficult to allow any valid conclusion.

Articles of clothing, including nickel buckles, are as important a cause of contact dermatitis as are medicinal substances, including adhesive plasters.

Some of the difficulties of carrying out such a survey are discussed.

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Health Visitor—General Practitioner Attachments

The extracts which follow are from a report by Dr G. A. F. Quinnell to the County Medical Officer of Health for Devon in the annual report for 1962.

“ Miss H., a qualified nurse and health visitor, was attached to the partnership in November 1961. Previously she had been a separate health visitor in the town for about 15 months . . . Early discussion revealed that Miss H. had felt starved of professional contact and in many ways isolated. The first effort was therefore directed to enabling her to use the central surgery of the firm as a place where she could meet doctors and other medical and social professional people. She was given the use of a large and cheerful room, with facilities for seeing people by appointment, and lock-up arrangements for private papers. She made use of the secretarial staff for patient contacts.

The lines of development which showed themselves to be desirable were the linking up of the county social services for young and old and the general practitioner health services . . .

In order to make her aware of the possibilities of mutual development between general practitioner and a social worker she was encouraged to sit in on some surgeries, followed by discussion of the various social problems which showed themselves. Similarly she attended and assisted with an immunization clinic run by one of the partners, and the antenatal consultations. Through these various contacts she was able to make the social services of the county more fully available to individual patients and families . . . Miss H. keeps contact with the general practitioner hospital which we use. For the future there would seem to be an opportunity to develop this attachment towards the follow-up of groups of disease, such as epileptics, to ensure continuity of treatment, and possibly some simple research projects, again especially the follow-up of specified diseases.

To conclude, this attachment . . . has been a considerable success. Miss H. has become so much a necessary adjunct to the effective running of this general practice that we now feel that if we lost this health visitor attachment, the service available to the patients would be very much poorer ”.