

CONTINUING MEDICAL EDUCATION

CURABLE ECZEMAS

R G Valia

The belief of incurability of eczemas is a deep-rooted one in popular mind. Dermatologists are at the receiving end of numerous jokes about eczemas. I believe that the status of our speciality largely depends upon our ability to show that the majority of the eczemas are curable.

Classification

Eczemas are broadly classified into two groups:¹ (I) Endogenous which are inherited, familial or constitutional, and (II) Exogenous where external factors are largely responsible. The exogenous group consists of three entities : (a) Irritant dermatitis, (b) Allergic contact dermatitis, and (c) Infective dermatitis.

Anyone familiar with the Indian dermatologic scene would agree that exogenous eczemas outnumber the endogenous eczemas.² Just by preventing the contact of an irritant or an allergen with the patient's skin, or by treating the infection which causes the infective dermatitis, an exogenous eczema can be cured. Hence, a majority of the eczemas are curable.

But in reality, we find that the exogenous eczemas are rampant, recurrent and chronic. We seem to be helpless spectators of this phenomenon. There could be various explanations for this state of affairs. Some of these are related to the patients, while others are related to the

medical personnel, the employers and the health authorities. Those related to the patients, include : (1) Self-treatment by an impatient patient, (2) Inability to avoid causative factors, and (3) Failure to understand allergy or irritation. Those related to the medical personnel, health authorities, employers etc include : (1) Failure to establish the diagnosis, (2) Apathy of the medical personnel, health authorities, employers and others, and (3) Expert treatment not available or costly.

Self-applied irritants

The practice of self-treatment is universal in India. In no other field, self-medication is indulged in as frequently as in skin disorders. Few patients report to the doctor, unless they have tried a few remedies, suggested by the friends, relatives, acquaintances and well-wishers. Skin manifestations being very obvious, there is a strange attraction to try what-ever is suggested by anyone. The range and variety of self-medications is truly amazing. The self-remedy can range from something very handy and simple to something very esoteric and bizarre. It would range from herbal to metallic, from various animal to plant products, from organic to inorganic substances. We carried out a survey of 200 patients who indulged in self-medication, and produced irritant reactions. There were 71% males and 29% females. Seventy nine (39.5%) patients were below 20 years, 49.5% were between 21 and 50 years, and 11% were above 50 years in age.

Professor and Head, Department of Dermatology and Venereology, LTM Medical College and Hospital, Sion, Bombay-400 022, India.

DR B AMBADY ORATION delivered at the XVI National conference of IADVL at Calcutta, January, 1988.

Irritants were applied not because of desperation or because the condition was chronic or not responding to the doctor's medicines. In fact in 76% of the cases the duration of the skin condition, for which an irritant was applied, was of less than one month. Only in 5.5%, the condition was of more than 3 months duration.

It was not only illiterate people who applied irritants, though they formed a large group 32%; an equally large group was of those who received primary (14%), secondary (27.5%) and college education (17%). Even a few professionals (3.5%), including doctors, were found to indulge in this activity. There were 12 (6%) young patients whose parents decided to apply the irritant applications.

Table I shows the skin conditions for which the irritants were applied. Patients apply irritants for any skin condition. Dermatomycoses (22%) and pyodermas (17%) were the commonest conditions. Eczemas (11%), neurodermatitis (8.5%), and other pruritic skin conditions (11%) were the next. Irritants are applied for traumatic conditions with the intention to kill the germs which may infect the skin. Cosmeti-

cally important conditions like vitiligo and acne are the other conditions for which irritants are applied. Impatient parents apply irritants for scabies, because of persistence of itching. Counter-irritants applied for headache of a common cold and sinusitis themselves produced irritation. In 10% cases, irritants were applied for other miscellaneous conditions.

Eighty six (43%) patients stated that they applied irritants on their own. In a good number of instances, the sources of advice were well-meaning neighbours (11%), friends (9.5%), acquaintances (5%), and the elders in the family (8.5%). Now-a-days, chemists (9.5%) too play the role of an adviser. Not to be left behind are the compounders (2.5%) and the quacks (1%). Even unknown people (2%) such as a person occupying a seat in a bus next to the patient or someone in a doctor's waiting-room seated next to him may be the source of unsolicited advice.

A large number of irritants are extraordinarily popular. These are available over the counter, without a doctor's prescription (Table II).

Table I. Preceding conditions for which the irritants were applied.

Dermatosis	Number (%) of cases
1. Dermatomycosis	44 (22%)
2. Pyodermas	34 (17%)
3. Pruritic skin conditions	22 (11%)
4. Eczemas	22 (11%)
5. Neurodermatitis	17 (8.5%)
6. Traumatic conditions	12 (6.0%)
7. Vitiligo	7 (3.5%)
8. Scabies	4 (2.0%)
9. Acne	4 (2.0%)
10. Cold-headache	4 (2.0%)
11. Miscellaneous	20 (10%)
Total	200

Table II. Proprietary irritants causing reactions in the patients.

Agent	Number (%) of cases
Sapat lotion	56 (28%)
Betex	37 (18.5%)
Germscutter	7 (3.5%)
Ringozone	4 (2.0%)
Tiger Balm	2 (1.0%)
Rambaan Balm	2 (1.0%)
Jakhme Rooz	1 (0.5%)
Amritanjan	1 (0.5%)
Vick's Vaporub	1 (0.5%)
Monison's Balm	1 (0.5%)
Total	112 (66%)

The lion's share goes to Sapat lotion. Fifty six reactions out of 200 were caused by it. I am sure the manufacturers must have made millions by now. The next place of honour goes to Betex preparations. Germscutter, though less favoured, also occupies a pride of place. Only the most heroic patients use it. Its salicylic acid concentration is 30%. Those who use it, are thrilled by the irritation it causes. They are happy, because they feel that the germs are being killed. Various counter-irritants such as Vicks Vaporub, Amritanjan, themselves cause irritation.

Their salicylic acid concentrations are, Germscutter (30%), Sapat lotion (9.6%), Sapat malam (8%), Betex ointment (10%), Ringozone (10%), Derobin contains (1.15%) of dithranol. I am at a loss to understand that how so many harmful remedies are allowed to be marketed and made available without even a doctor's prescription. The preparation containing 30% salicylic acid which almost always irritates, is advertised freely. Such skin remedies are advertised in the newspapers, on public transport buses and even on Doordarshan. Advertisements in the newspapers, radio and TV influence the behaviour of people and induce them to do what they should not. There should be some curb on the irresponsible advertisements, making fantastic claims about the products. In a country of illiterate and semiliterate, credulous and poor people, the manufacturers of irritants have a thriving business. There seems to be no legal hindrance in the manufacture, advertisement and free sale of these products without a doctor's prescription.

I am of the opinion that our association should take up this matter with the health authorities. Every skin product should be screened by a committee of experts. Any product, reported by dermatologists to be causing irritant reactions, in a large number of patients, should be used only under direct medical supervision. No such product should be allowed to be advertised unethically.

Thirty five (17.5%) patients applied known irritants. Menthol (6%) and camphor (7.5%) in ayurvedic preparations and home remedies, caused irritation because of their higher concentrations. Those who are intent to kill the disease germs quickly, used substances like lime (1.5%), soda (1.5%), strong acid (0.5%) or copper sulphate (0.5%). To their bewilderment, what got killed was their skin. One patient each applied battery powder and ammonium carbonate.

In 35 (17.5%) patients the irritation was caused by herbal preparations. By and large, herbal preparations are considered mild and harmless. But our people have a genius of selecting the irritants among them, like garlic (5%) and marking nut (2%). Turmeric was used by 7 (3.5%) patients while 2 (1%) patients used tulsi. Some strong-willed used red chilli powder (1%) on their skin lesions. Patients from villages have their home remedies in the form of concoctions of plant products (5%). Good number of them are irritants, but their exact identification becomes difficult.

Some ayurvedic oils enjoy a reputation for their therapeutic efficacy. In all, 16 patients applied ayurvedic oils, which produced irritation. While neem oil (2.5%) produced mild irritation, karanja oil (1%) and mustard oil (2%) were real irritants. Proprietary preparations like Narayani oil (1%) and Mahamarichadi oil (0.5%) are concoctions of numerous potential irritants. Many of these ayurvedic oils and topical applications act as irritants in a large number of the users. Could they be banned? If it is not possible under the existing laws, at least a warning should be printed on the container, that in the event of worsening of the condition, it should be discontinued. Advertising of such preparations should not be allowed. There should be clinical trials conducted regarding their safety and efficacy. Some of the modern-minded, applied industrial oils like

engine oil, (0.5%), brake oil (0.5%) or kerosene (0.5%).

In 28 (14%) patients therapeutic agents caused the irritation. Dettol (4.5%) is the favourite of people who are haunted by pathogenic germs. They apply Dettol undiluted on any trivial trauma or any skin condition supposed to be of infective origin. Over-application of benzyl benzoate (1.5%) or sulphur ointment (0.5%) caused irritation. Seven (3.5%) patients who applied Derobin developed irritation. Other therapeutic agents applied were boric powder (2%), Psorline ointment (0.5%), Luderamol oil (0.5%), Pragmatar (0.5%), and potassium permanganate (0.5%). In their eagerness to get well, two vitiligo patients approached a chemist who handed them psoralen ointment and chalmogra oil with an advice to expose to the sun. Both developed sunburn reactions.

Some exotic combinations also came to light during our study. Perhaps these represent the persistence of esoteric practices of black-magic and witch-craft. Those who wanted to take no chance combined two heavy weights like lime and soda. Someone added lime juice to a combination of lime and chillies. Garlic paste containing garlic, menthol, camphor and coconut oil produced a blister in no time. The most exotic preparation was goat faeces combined with burnt coconut shell and coconut oil. The prize should go to a genius who saw a bottle of head-cleaner for the tape-recorder and applied on the head of his son, who had itching on the scalp and produced an irritant reaction.

The long-term remedy for the self-medication is education of the people. We have to educate the people that self-treatment is dangerous, whatever aggravates the skin condition is harmful, and that there are scientific remedies for almost all skin conditions. Besides, we should use mass media to carry this message. School textbooks at some stage, should carry

the concept of skin being an important living organ, and that it should be treated rather gently and should not be assaulted with harsh remedies.

Industrial contact dermatitis

These are the situations when a patient cannot avoid the causative factors. An industrial worker is exposed to various irritants or allergens during his work. If he develops a contact dermatitis related to his job, he consults a dermatologist of the Employees State Insurance Scheme Diagnostic Centre or Hospital. The ESIS dermatologist recommends preventive measures such as use of gloves, aprons, shoes or masks. The enforcement of this recommendation is supervised by the factory inspectors. In actual practice, these preventive and safety measures are more observed in breach rather than in compliance.

When the dermatologist is convinced that a worker can no longer continue in his present work, he naturally recommends a change in his work. The management may not comply with this advice. The dermatologist has on mandatory powers to order to change the nature of his job.³ For a worker, a job is a priceless possession. The worker, afraid to lose his job, may continue to work in spite of his dermatitis. He once again approaches the ESIS dermatologist who is now forced to treat the condition with topical and sometimes systemic corticosteroids. This state of affairs goes on for months and years. A visit to any ESIS diagnostic clinic will reveal a number of such industrial workers, queuing up for topical and systemic corticosteroid therapy with all their hazards.

The time has come for us to correct and rectify this state of affairs. We should demand for powers for the dermatologist to shift such a worker to a job, not involving the offending contactant or contactants. We should not play

the role of pedlars of corticosteroids for a totally preventible condition.

Housewife's eczema

Housewife's eczema is another example of the inability of the patient to avoid the causative factors. Housewife's eczema is probably the most common type of contact dermatitis of the hands encountered in clinical practice. It is a cumulative insult dermatitis of the hands of women and men having a regular exposure to soaps, detergents and cleansers.⁴

We carried out a survey of 50 cases of housewife's eczema. Our study consisted of 50 patients (46 females and 4 males). Thirty (60%) patients belonged to the age group 21 to 40 years, while 18% were below that and 26% were above that age group. Atopic background being the well-known predisposing factor in housewife's eczema,⁵ family history of atopy was present in 24%, while clinical features of atopy were present in 62% of the cases.

In the textbooks written by the Western authors, there is an exclusive emphasis on involvement of the hands in the housewife's eczema,⁶ ignoring the involvement of the feet. There women use a washing-board while doing washing and cleansing work. There is no involvement of the feet as their feet do not get soiled with soap and water etc. In the Indian context, we very often find involvement of the feet. This is due to the local practice of squatting while washing the clothes and cleansing the utensils. The soap-water constantly soils the feet of the housewife. Hence, the feet too show changes of housewife's eczema in these cases. In our study, involvement of the feet was seen in 42%, besides involvement of the hands. In 2 (4%) patients, there was involvement of the feet only. Thirty (60%) patients had involvement of both the hands, 30% had involvement of the right hand, while 10% had involvement of the left hand alone. In all the 42% patients who

had involvement of the feet, the changes were seen in both the feet.

Therefore, along with the instructions to protect the hands, we should give similar instructions regarding the feet also. By using an elevated platform or a seat while doing such work, they may prevent contact of their feet with the soaps, detergent and water. This simple measure is quite useful and is always appreciated. Besides, if they use protective slippers, they escape affection of the feet.

It is facile to advise a housewife to avoid her work. We should better advise the patients to use less alkaline soaps and detergents. The contents of the soaps and the detergents and their pH values should be printed on their wrappers. This should be made compulsory, as in the case of drugs and hazardous chemicals. Use of gloves is not very practical in our climate. Besides good quality gloves are not available. Use of cloth gloves inside rubber or vinyl gloves may be more useful,⁷ but an average housewife is hardly likely to use these. This is a perennial problem of housewife's eczema in our country.

Infective dermatitis

Infective dermatitis or bacterial eczema is quite common in our country. It is more common in the children but is frequently seen in adults. Lack of personal hygiene, and a high incidence of trauma and malnutrition predispose to bacterial infections. Improper treatment makes these infections chronic. Secondary eczematization is quite common.

We studied 50 patients having infective dermatitis. The preceding bacterial infections were as follows: Pyodermas in 13 (26%) and otitis media in 4 (8%) patients. All the patients were children. There were 5 (10%) cases of osteomyelitis. Osteomyelitis very commonly develops after a bone injury. It leads to a sinus, discharging pus. This purulent discharge may set up an eczematous process around. Infected

and discharging traumatic wounds (22%) led to an infective dermatitis around. The bacterial flora of both these conditions are varied. Rest of the conditions were : infected wounds of ear pricking (8%), nasal discharge of sinusitis (6%) and bacterial intertrigo (6%). Miscellaneous conditions were seen in 7 (14%). Bacterial culture revealed coagulase +ve staphylococci in 32 cases, beta-hemolytic streptococci in 12, *Pseudomonas aeruginosa* in 10, *Klebsiella mirabilis* in 2 and *B proteus* in 2. In 3 cases, no growth was obtained, perhaps due to prior treatment.

Table III shows the antibiotic susceptibility pattern of the organisms. Staphylococci, as shown here, were no longer susceptible to penicillin, erythromycin or even tetracycline. The same is true of beta-hemolytic streptococci, as far as penicillin is concerned. Even tetracycline and erythromycin are not so effective. *Pseudomonas* are resistant to penicillin, chloramphenicol, ampicillin and erythromycin. Even tetracycline is not so effective. Similarly *Klebsiella* is resistant to all except gentamicin.

The lesson to draw is to do bacterial culture and susceptibility studies before starting the therapy, particularly for treating the infected

traumatic ulcers of the legs and conditions like otitis media and osteomyelitis. Their bacterial flora are varied and resistant to common antibacterials. Randomly given topical and systemic antibacterials are not only useless, but may give rise to fresh sensitizations.⁸

Failure of communication

Failure of communication between the patient and the dermatologist is a very common cause for allergic contact dermatitis to recur and become chronic. An average Indian patient is hardly aware of the phenomenon of allergy and allergenic nature of a contactant. He is incredulous that simple substances like a footwear, a spectacle frame, a cosmetic, a metal or a plant can cause any damage. Even the idea that a substance being used or handled by him for a long time can cause sudden reaction is beyond his understanding. Our patients imbibe the concepts of our indigenous systems of medicine from their childhood. All the time they attribute their skin diseases to some blood impurity, to improper food or to some defects in the digestion of food or to constipation.⁹ The concept of germs causing skin diseases is also widely prevalent. It is thus a frustrating

Table III. Organisms isolated and their susceptibility to antibiotics.

	Number of susceptible strains of				
	<i>Staphylococcus Coagulasetive</i>	Beta-hemolytic streptococci	<i>Pseudomonas</i>	<i>Proteus</i>	<i>Klebsiella</i>
Penicillin	9	4	0	2	0
Streptomycin	13	5	4	2	0
Tetracycline	19	6	3	2	0
Chloramphenicol	21	9	0	2	0
Gentamicin	28	10	6	2	2
Kenamycin	15	7	3	2	0
Ampicillin	11	8	0	0	0
Erythromycin	11	6	0	2	0
Total number of strains isolated	32	12	10	2	2

task to obtain a proper, relevant and helpful history from a patient with such a background. When the clinical pattern of allergic dermatitis is not clear, as in hand eczemas, we do not get much help in the form of a useful history from the patient, so as to narrow down the range of possible allergens. Our patients act as passive spectators and not as active participants in the process of arriving at a diagnosis. Even if you establish the diagnosis of allergic contact dermatitis and instruct the patient to avoid the allergen, you may be baffled that he still continues to have the dermatitis. Ultimately, you may be able to unearth the fact that he is still using the offending footwear though occasionally, or that she continues to use the prohibited cosmetic, though only on some festival days.

Handicaps of a dermatologist

A dermatologist may be handicapped if he does not get all the details of the contactants of a factory worker, from the management, or a cosmetic manufacturer may not give all the details of the constituents of a cosmetic. Here, I would recommend to make it compulsory for the manufacturer to reveal all the ingredients of a cosmetic on the container.

Sometimes the presentation of a contact eczema may be so atypical that a pattern may be very difficult to discern. The diagnosis may require the detective genius of a Sherlock Holmes. The same analytical approach, deductive logic and imagination of a high order are the required qualities of a good dermatologist.

To catch the culprit, availability of contact allergens for patch testing is a must.¹⁰ In the vast majority of our teaching hospitals, contact allergens are not available. In fact, most of the contact allergens required for patch tests are not available in our country. We are left with no alternative but to test with the suspected material as it is. This method of testing is not reliable and gives a high percentage of

false negative results.¹¹ Even if a positive result is obtained, the question as to which constituent of the suspected material is allergenic remains unanswered.¹² Imported allergens are extraordinarily costly. Besides, some allergens relevant to our country are not available abroad. It is very essential that all the allergens are produced in our country. Unless this is done, pin-pointing the exact allergen responsible for the eczema will not be possible, and to that extent the dermatologist will be handicapped. I am happy that, of late, an attempt has been made to make some allergens for testing available in our country.

Corticosteroids—a panacea?

It was Sulzberger who stated, "No remedy in dermatology history has achieved so much, with so few adverse effects when applied topically as has hydrocortisone and its analogues."¹³ It is also true that no other drug in dermatologic history has blunted the diagnostic acumen of the clinicians as much as the corticosteroids.

The pharmaceutical industry has played its part in no small measure in bringing about this denouement. It has come out with a host of omnibus combinations. They combine a corticosteroid, an antibacterial, an antifungal and may be something extra. A brochure of one such preparation mentions that it can be used for "almost any dermatosis", or in the words of another, "for perplexing dermatologic problems". The indications for the product cover all the diseases in the dermatology textbook.

Whenever an eczema patient approaches his doctor, a panacea in the form of a corticosteroid is prescribed. The panacea works wonders. There is an instant response. The patient is quickly relieved, pleased and happy. If it is so simple, why spend time to obtain a detailed history, why tax one's brain and scratch the head to find out the cause of an eczema, why to bother about detailed patch testing?

On stopping the corticosteroid, if the condition recurs, the same or a similar corticosteroid of another brand may be prescribed. If the skin condition still continues to recur, doctors have several games at their disposal. They blame the patients for non-compliance with their instructions, such as indiscretion in their diet, they can have an easy escape by blaming the constitution of the patient, which cannot be altered. Doctors have a liberty to blame the ancestors of the patient, by declaring the skin condition to be of hereditary origin. If nothing else comes to help, they have a last recourse of blaming the fate of the patient.

If the hapless patient visits another doctor, the whole game starts all over again. I wish that this game is not played with the patients. We can convince the people that the majority of the eczemas are curable, of course with the intelligent cooperation of the patients and intelligent perseverance of the dermatologist.

References

1. Burton JL, Rook A and Wilkinson DS : Eczema, lichen simplex, erythroderma and prurigo, in : Textbook of Dermatology, 4th ed, Editors, Rook A, Wilkinson DS, Ebling FJG et al : Blackwell Scientific Publications, Oxford, 1986; p 367.
2. Desai SC, Dhurandhar MW and Patnaik RN : The nature of allergic and eczematous dermatoses

in a skin department in Bombay, Ind J Dermatol Venereol, 1965; 31 : 98-104.

3. The Employees State Insurance Act 1948, 3rd reprint, KG Maheshwari, Calcutta, 1976; p 30-31.
4. Fisher AA : Contact Dermatitis, 3rd ed, Lea and Febiger, Philadelphia, 1986; p 268.
5. Calnan CD : Hand dermatitis in housewives, Brit J Dermatol, 1970; 82 : 543-548.
6. Wilkinson JD and Rycroft JG : Contact dermatitis, in : Textbook of Dermatology, 4th ed, Editors, Rook A, Wilkinson DA, Ebling FJG et al : Blackwell Scientific Publications, Oxford, 1986; p 470.
7. Fisher AA : Contact Dermatitis, 3rd ed, Lea and Febiger, Philadelphia, 1986; p 269-270.
8. Wilkinson JD and Rycroft JG : Contact Dermatitis, in : Textbook of Dermatology, 4th ed, Editors, Rook A, Wilkinson DA, Ebling FJG et al : Blackwell Scientific Publications, Oxford, 1986; p 374.
9. Shri Bhavamisra : Bhavaprakasha, 4th reprint, Chaulkhamba Sanskrit Sansthan, Varanasi, 1942; p 419-420.
10. Fisher AA : Contact Dermatitis, 3rd ed, Lea and Febiger, Philadelphia, 1986; p 9.
11. Cronin E : Contact Dermatitis, 1st ed, Churchill Livingstone, Edinburgh, 1980; p 13.
12. Pasricha JS : Allergic Diseases of Skin, 1st ed, Oxford and IBH, New Delhi, 1981; p 79.
13. Sulzberger MB, Wolf J, Witten VH et al : Dermatology, Oxford and IBH, 3rd ed, 1965; p 111.