

# CHILDREN SUFFERING FROM RESPIRATORY ALLERGY IN GENERAL PRACTICE

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IN AN investigation of the sickness rate of a closed community of 9,800 people in Tecumseha of whom 2,307 were under the age of 20, Broder *et al.* (1962), classified 297 youngsters as suffering from 'asthma' and 274 from 'hay fever'. These figures would vary very little among children within any unselected community. I have, myself, reviewed 265 case histories of those young people, seen in my practice over the past three years, with symptoms of respiratory allergy.

TABLE I

<i>Main condition</i>	<i>Number of children</i>
Asthma .. .. .	125
Nasal asthma .. .. .	117
Eczema and urticaria .. .. .	12
Eczema and nasal allergy .. .. .	6
Eczema and asthma .. .. .	4
Laryngismus stridulus .. .. .	2
Nasal allergy and migraine .. .. .	1
Asthma and migraine .. .. .	1

TABLE II

THE MAIN SYMPTOMS IN COMBINED ALLERGIES

Asthma and nasal symptoms .. .. .	112
Eczema and nasal aymptoms .. .. .	60
Asthma, eczema and nasal symptoms .. .. .	49
Asthma and eczema .. .. .	5
Respiratory allergy with migraine or urticaria	14
Asthma and laryngismus stridulus .. .. .	2

This group of cases includes a wide range of diseases such as allergic rhinitis, sinusitis, catarrh, tonsillitis, bronchitis, bronchial asthma and laryngismus stridulus. The common pathology is oedema, with smooth muscle spasm and increased secretion from mucous glands. However varied the clinical manifestations, the principles of diagnosis, investigation and therapy remain unaltered and the aim is always relief for the patients. Each included a respiratory allergy as part of the syndrome. In detailed form, these are the conditions which were treated.

I undertook this survey because of a radical change in my approach to the whole picture of respiratory allergy. I began to question the necessity for the many painful injections and skin tests normally advocated, the exclusion of even staple foods from the diet and the night-calls for relief which were so frequently to be expected. It seemed to me that these things, which frighten and distress children might be avoided and I hope to prove this is not only possible but more satisfactory. I would also stress the point that the general practitioner, with his deeper knowledge of the family situation, with patience and a love of children, together with the opportunity for a lengthy follow-up of each case, is the best person to undertake treatment of allergic children. It is vitally important that a careful investigation be made of the physical, psychological and social factors in each case and that the complete confidence of the child be obtained.

Unfortunately, specialist opinions are so varied that modern literature is often of little help to the general practitioner. We may meet with contradictory opinions, even within one edition of a journal. I have tried to sort out these opinions, and, should any reader require detailed references, these will gladly be given. A theoretical, detailed discussion of this subject will also be published in another journal.

There is a growing change in attitude to the removal of the tonsils, which was once performed indiscriminately. One is inclined nowadays to regard an infected red and pus-filled tonsil or a white oedematous, allergic tonsil (or a combination of both) as a protective reaction. It may be a lymphatic antibody production which acts as a vanguard, to prevent a sinusitis from becoming a bronchitis. In my group of patients, tonsils and adenoids have only been removed in 25 cases, where the infection did not respond to treatment, or the symptoms became medically irreversible. Some of these 25 cases were operated upon many years ago and, had the rigid standards of

today been employed then, it might have not been thought necessary in many of them.

In a textbook, published as recently as 1951, one still finds allergy in children described as caused by "sensitivity to foods, inhalants and bacteria". There is no mention of a psychological factor. Even in the years between 1959 and 1963, not one article can be found in the *Journal of Allergy* which deals directly with the psychological approach. Eisenberg and Maclaren (1961) represent a stage in the development of a new attitude, when they state . . . "We must know our patient, his history, general condition, degree of sensitivity, associated conditions and sensitivities and *even* (my italics) his emotional make-up".

At the same time, the opposite approach—from the purely psychogenic angle—was being put forward by certain psychiatric groups. In 1963, Hewetson *et al.* analysed a group seen in general practice, and found that about 30 per cent of their patients suffered from psychiatric conditions and another 50 per cent were ill with stress disorders. One must take into account that certain doctors attract a certain type of patient but, even so, these figures demonstrate that the balance lies somewhere between the extremes of opinions expressed in current literature. There is no doubt that allergy is, to some extent, a stress disorder and therefore falls into that large group of problems which occupies about half the time of any general practitioner.

We often hear of cases where a priest, a quack, or just a layman friend has been able to 'cure' asthma where a doctor has done his best with no success. These people have often obtained the patient's full confidence where the doctor failed to do so. Though naturally confident children will respond to all kinds of approach, it is clear that the deeper the investigation and therapy, the less one has to use hurtful and unpleasant procedures in treatment. The doctor must spend time with his patient, gaining his confidence and giving careful explanations of all that he must do. Even pre-school children need reassurance and a simple explanation, if they are not to be frightened of the doctor.

The worst thing one can do is to treat even an infant as a being without understanding. He needs emotional support, and its associated relaxation of the whole body and mind. Unless this is given, with help also from the mother and family, success in treatment is unlikely. In my recent survey, I checked how often my personal influence was used deliberately, together with a prescription.

For 241 children (i.e. most of them) the prescription was of psychological importance. The placebo action must be used, even if one knows there is an active ingredient. The effectiveness of a chemical compound or a procedure can thus be shown, in a double blind trial, but it is useless as an index of success. The crux of success lies in the personality and influence of the therapist.

In a full psychological investigation, one must include the parents, other members of the family—especially siblings—and the social set-up of the community.

Asthma is a common outlet for reaction in a child to his parents and can often be traced to overprotection or domination by the mother, or by rejection. A child is not easily deceived. If the mother can talk freely and in confidence with the doctor, she can usually be helped to act more normally with her child. This will make the child less insecure and will relieve the asthma. Expert psychiatric help is rarely needed, except in the case of the depressive mother or child. In most other cases, one needs only a sympathetic approach and common sense, though the overpowering type of mother, who satisfies her own needs by riding roughshod over her child, must be handled with great care. Frequent and kindly interviews are necessary, if one is not to arouse further antagonism. The over protective mother is often insecure and needs help to dispel her fears so that she can be more relaxed with her sick child. She is rarely a serious problem to the doctor. In my group of cases, deep rejection by the mother affected six children and overdomination was very important with a further 13. These factors vary very much with the type of tradition and environment in the community. Only the family doctor, in continuous contact with the *milieu*, can judge this accurately and take the correct action. A situation which could disturb a child profoundly may, in another social setting, be accepted as normal.

To a rather lesser extent, as a rule, the father may also be a contributor to a child's allergic condition. That his attitude can be of great importance has only recently been appreciated. He may be emotionally incapable of giving to his offspring. He may simply be ignorant of their needs or disinterested or disappointed in them. The child is aware of this. In my group, the father was an important factor in 17 cases. Handled correctly, with sympathy, understanding, time and common sense, the father is usually co-operative. If he can be helped to enjoy doing things with his children, relaxation of the patient will follow.

Fear of separation from either parent is as harmful and important

as separation itself, often unavoidable. If this is suspected, the child must be encouraged to verbalize his fears. The psychological purgation again rarely needs specialist help and often comes unexpectedly. There must be no shortcutting of this essential mechanism in a child and many opportunities must be offered for it. The final explosion often produces a miraculous relief of respiratory symptoms. Unfortunately, children are too often stifled in the struggle to express themselves by the doctor, or the fear of talking frankly is even greater than the need for it. In my group of children, 26 (about 1 in every 10) produced this dramatic reaction.

The social setting and the psychological make-up of the allergic child have recently been investigated. It is shown that allergics often display dissatisfaction with family life and desire to get away from the home environment. There is often resentment against authority, particularly so against the father. Allergic girls often harbour more guilty feelings about problems of sex than ordinary people, though this is less important in allergic boys. The boys are often timid and shy in social relationships. They frequently antagonize their friends, quarrelling easily or capitulating completely, which has the same result. This is the same contraction, in the whole personality, as in the respiratory tract. If they are not helped to relief of this abnormal tension, older allergic children are liable to fight society in general. These children complain of many symptoms, unconnected with the allergy, and these must be treated seriously, if one is to relax their fears. The allergic subject often feels inadequate and weak—expressing this in depression, irritability, grouchiness and chronic fatigue.

Although another investigator, with the same sample, might group them differently, which only goes to prove how completely individual this kind of research must be and that definite statistics are impossible, my own findings were as follows. Among the 265 cases, sibling rivalries seemed an essential factor in 41; fears connected with school, in its widest sense, occurred 13 times; phobias connected with sex problems, in overt form, upset three youngsters severely. Other definitely focused fears occurred twice. A group of 25 children had deep-seated fear reactions which were not obviously attached, but which responded without deep analysis. One hundred and sixty-one of the children were suffering from psychoneurosis. Sixty-three could be classed as overanxious, and another 41 were basically normal but much upset.

The psychological component of the allergy seemed to be an

anxiety reaction in 212 children, a phobic reaction in 13, a reaction with marked immaturity in eight, hypochondriasis in three, psychotic depressions in two, and an alexia, a mixed psychoneurosis and an epileptic deterioration. These classifications confirm that fear, in some form, is practically universal in children who suffer from a respiratory allergy.

In treatment of these allergies, since the upset mind is so important, tranquillizers should be helpful, and this has been proved in much recent work. In my own group, 22 were helped by the use of chlorpromazine, 14 improved by chlordiazepoxide, two relieved by imipramine and one by rauwiloid. The main standby is still syrup of codeine, which relieved 120, and the various barbiturates were most helpful for 94 children. Chloral was used successfully for three infants. Antihistamines not only have the function which their name implies but are also powerful sedatives. They were used for night sedation with 225 children (that is, the majority of cases). In more than half the group, 165 children, they were used by day. There is no quick way to discover what will help most in each case. One must continue to change the compound until the right one is found, whichever best relaxes the child. This can almost always be done.

Antispasmodics, antihistamines and sedatives must be considered in relationship to the overall treatment. There was only one patient in the whole group where none of them was used. This was purely functional and seems to be very rare. Particularly when associated with infection, the compounds discussed above act much better when used together. So often the practitioner uses first one and then another approach, defeating his object. The whole treatment must be carried out simultaneously. This is not polypharmacy. If only one factor is neglected, it may mean failure. In 210 children these three groups of compounds were used together. In only 14 others was it possible to use only antihistamines and antispasmodics, and the former probably acted as a sedative. Adrenaline-like compounds must never be spared. One hundred and thirty-one of my group used them by inhalation and occasionally sublingually. Only two were given injections, though possibly others were given injections at some time by another doctor. Practically always, this calamity of aminophylline or adrenaline type of compound injection can be avoided. One must use continuous and prolonged preventative action to keep the spasm from getting out of control.

It appears that in an allergy there is a wrong action in the midbrain

and hypothalamus. We try to influence the over and under action of different, as yet unknown, centres in order to produce a change of rhythm. This takes a long time. The best results, during the night hours, are produced by simple combinations of ephedrine, belladonna and aminophylline, provided that a sedative and belladonna are combined with it—nor has the dreaded danger of addiction ever resulted. It must be emphasized that the old idea that these combinations act mainly peripherally is probably an error. I prescribe with the theory that they work, as a whole, mainly centrally and that the peripheral action is less important.

For several years, I have practically abandoned parental hypersensitization, in dealing with children. I consider house-dusts, pollen extracts and so-called bacterial vaccine are a mixture of unknown protein and polysaccharides, and probably many other compounds. The actual standardization alters with its nitrogen content of bacterial count. We do not know what happens to them in the body, how they are broken down or where the antibodies are formed. There is no denying that percutaneous therapy can be of the greatest help but is rarely necessary. This has been demonstrated by the recent suppression of skin reaction by hypnosis. Apart from this, the reactions to the same testing extract can be varied, even in the same child, at different times. Either a huge, urticarial, immediate flare or a deep-seated, dermal, tuberculin-type of reaction may result from the same extract, possibly even both in the same patient. If there is not, therefore, a definite reaction to be expected from use of a definite compound, I feel it must be possible to replace the dreaded procedure of testing by something more humane, and equally effective.

We should be able to increase the non-specific body response, without injecting a little bit of foreign matter under the skin. I have tried to do this, by every avenue under discussion. By keeping a child in contact with his allergen, in reduced concentration, it is hoped that its absorption has a similar effect to the injection. In evaluating the results, the strictest criteria have been used. Only 89 cases were considered symptomless, without sign of allergy over many months. One hundred and sixty-five were improved or greatly improved and none was unimproved, or worse. Such results are not very different from those in allergy groups treated in the old way, but the lack of distress caused is considerable for both the child and the doctor.

The public mind connects the doctor, in cases of allergy with injections. This is summed up by the President of the American

College of Allergy, as follows:

"... with injection therapy as I call it, that we as allergists are chiefly identified to the American public—an allergist is a doctor who gives shots". He goes on, significantly, "... What would happen to the patient with pollenosis over the years if he were to forego injection therapy entirely? We cannot answer this for it is rarely indeed that injection therapy is withheld from a patient with the 'pollenosis syndrome' in clear form. Nevertheless we cannot rule out the possibility of a happy coincidence from instruction in allergic cleanliness and in the intelligent use of drugs, the allaying of the patient's anxiety and spontaneous lessening of the patient's sensitivity."

This is precisely what has been attempted in this survey. The results speak for themselves.

*Food allergy* has been treated in the same fashion. Forty-six children were treated for allergy to milk, but in only 11 cases was milk protein removed completely from the diet, for no more than a few months and never for a second time. Ten allergies to wheat and six to egg were never entirely removed from their allergens. The ordinary, obvious food allergies were always treated only by reduction, never by total exclusion from the diet. In older children, food allergy was not of great importance. Again, this shows some kind of desensitizing mechanism at work in the body, which should be interfered with as little as possible. It should be mentioned here that this investigation was carried out on a preselected sample. Very severe allergies do not come my way. Mild allergies are usually dealt with radically, by the patient himself, by strict exclusion.

As can be seen, no special equipment is necessary for this work in general practice. Skin testing procedures do not need to be carried out by the family doctor. There are few children of whom a careful study of history will not reveal the answers. In my practice, only 73 children were tested and some of these only because of a request for it, by the referring doctor.

*Dust sensitivity* is practically always present if a child wheezes and sneezes, mainly at night. The attack begins in bed, grows worse in the middle of the night and eases off at school, with perhaps a 'blocked nose' during the daytime. Under these circumstances, regardless of skin tests, one must treat for dust sensitivity. Whether the dust includes feathers, kapoc, moulds or any other factor is immaterial. The same seems to apply to dusts as to any pollen allergy, where sensitization to one grass invariably leads to sensitization to another. If a child, who suffers from a seasonal pollenosis, also shows perennial symptoms of a stuffy, blocked nose and tightening of the chest or other symptoms, then nearly always there is a combined dust and perennial grass pollen allergy present. Though



this seems to apply in both England and New Zealand, it might be different in other climatic conditions.

There are some simple rules to remember in dealing with every dust allergy, which can make all the difference between success and failure. Two hundred and twenty-five out of my 265 children had to be instructed in dust control. Dust traps throughout the household must be at a minimum. This means no furry carpets, eider-downs, feathers, kapoc, or wool stuffings anywhere and no cupboards should be without doors. Blankets matter little, for they can be easily shaken outside. If rubber mattresses and pillows are too expensive, plastic coverings are cheap and efficient, provided that they form a complete envelope with a big tuck in. They must also be taken off regularly and the contents dried carefully. Dangerous break-down compounds are produced by all other materials which are secondarily infected by spores. Floor and furniture oil must always be used, to collect microscopic dust particles from the air. Electric suction cleaners disturb dust and should only be used when the patient will be out of the room for a long time. Dust particles remain floating for many hours. Open windows and fresh air are more important than a warm bedroom.

No furry animals ought to be kept in the house, as the microscopic dander has an even more pernicious action than dust, in most respiration allergies. On 33 occasions, I have tried to exclude pets from the bedrooms, not always with successful results. An animal is often an outlet for the emotions, and I have sometimes found that psychological damage from deprivation outweighs the physical advantages. Here again, it is the family doctor who understands the special home conditions, who proves the best instructor in each case.

*The infective factor* is most important. The former division between infective and allergic bronchitis, sinusitis and allergic sinus catarrh is purely theoretical. If mucous forms in a body cavity which is connected with the respiratory tract, organisms will invade through the oronasal areas. When tested, allergic sputum is always found to be infected. Whenever there is the least doubt, antibacterial compounds should be used. Only once, in this group, was sensitivity encountered—to penicillin and it did not harm the child. Various sulpha compounds were used 120 times. Not once were parenteral antibiotics used. It is astounding how much difference can be made in a child's condition by a few days of anti-infective treatment. Although continuous and prolonged antibiotic therapy was not

necessary within this group, it would certainly be so in an occasional patient. In the frequent repetitive courses which were used, I did not find any weakening of effect. It is important that the anti-infective therapy should always be used in combination with all other anti-allergic approaches. It is this total approach which relaxes all causative factors, giving the patient a chance to readjust.

In this connection, the length of supervision is of utmost importance. Relapse is likely if this is too brief. In the group I treated, the length of supervision was as follows:

Up to 1 year	88
From 1 to 2 years	30
2 to 3	27
3 to 4	31
4 to 5	33
5 to 10	35
More than 10 years	11

During these years the number of attendances of individuals was as follows:

Up to 19 attendances	144
From 20 to 39	78
40 to 59	30
60 and more attendances	13

These figures show how intense and prolonged a follow-up is needed in order to cure the allergic symptoms. It is important that treatment should begin early, before the allergic reflex becomes deeply rooted. In 90 of these 265 cases, treatment was started within the first two years and in 49 others, within the third to fifth years. Another 45 were seen before the tenth birthday and only 81 were seen, for the first time, after this age.

*Physical treatments* are often of the greatest assistance. They seem to stimulate resistance to injection, they relax mind and body and often seem to counteract the allergic reaction specifically. *Breathing exercises* are admirably summed up in the British Asthma Research Council's exercises. They can be taught initially by a physiotherapist and continued in the patient's own home for the rest of his life; with occasional checks to see that no wrong habits have developed. In paediatric allergy practice, this is far too often neglected. Exercises increase the depth and size of the respiratory excursion, using all the associated muscles, and making it easier for a patient to handle an asthmatic attack. If these are combined with modern generalized *relaxing exercises*, the effect is even better.

General physical development also is often neglected. A child, who shows allergic symptoms in early life, is frequently overprotected

and underdeveloped. Many doctors condone or actively encourage this attitude. Even though a toddler should sneeze and wheeze a little, he should be taught to run about and to exhaust his energy naturally. Older children should be trained in hard, open-air sport. Allergic subjects are often capable of astounding physical achievements, with a corresponding alleviation of the asthmatic tendency.

Recent experiments have shown that even gradual, carefully regulated and supervised activities in the nude, in all weather conditions, cold showers, hard rub-downs with cold water, swimming in rather cold water and similar activities actually do help considerably. This is probably connected with an increased development of the adrenals and changes in the steroid metabolism. Naturally, such activities must be begun very gradually and not while a child is suffering from a marked secondary infection.

If the practitioner is trained in Cyriax's or Timbrell Fisher's manipulative techniques, he can give even more help. It is amazing how much relaxation of the locomotory mechanism can be achieved in this way. It has a great and general relaxing effect upon the allergic child. After a series of manipulations, he can deal more easily with his attacks. Two hundred and eighteen of my group of children were advised to take part in some kind of stimulating open-air activity. One hundred and seventy-four were instructed in breathing and relaxing exercises and various loosening manipulations were carried out on 152 children.

The use of *steroids* internally is rarely necessary in general practice. A really steroid-deficient child, or one who does not use his own steroids properly usually needs some connection with hospital and the help of allergy specialists. In my group, only three children were given steroids internally and none for a prolonged period. Locally, on the skin, in the nose and around other openings they have to be used more freely. I have seen no harm come from them in the 83 cases where they were used intranasally and the 68 cases where they were used externally.

### Discussion

In dealing with this group, many different approaches have been made. Almost all of it is within the range of the general practitioner. He is the best person to treat all respiratory allergies of average severity, for only he can appreciate and deal with the total situation, simultaneously and without administrative delay. No clinic can ever replace this understanding of the whole family background and

it is to be hoped it will never be attempted. The day-to-day supervision by one man and fine variations in therapy, which are necessary in dealing with allergy, make the general practitioner indispensable.

### Summary

I have tried to show that the general practitioner is the best person to treat respiratory allergies of average severity in children. The problem must be approached from all possible angles simultaneously. These have been discussed in their various aspects. A detailed analysis shows that unpleasant parenteral therapy is rarely justified. Good results seem to be possible with this wide approach. A long and careful follow-up and a good personal relationship with the young patients are the sheet-anchor for preventing attacks of respiratory allergy. I have tried to show that any attempt to replace the general practitioner by the use of clinics would be a retrograde step.

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### General Practice in Scotland. Why the difference? J. S. K. STEVENSON. *Brit. med. J.* 1964. **1**, 1,370.

This paper is a survey of the work-load in a three-partner practice in Ayrshire over the period 1957-1963. The results are compared with those of similar surveys in Scotland and other parts of the United Kingdom.

The author concludes that, for reasons not as yet apparent, the amount of work required per patient is far greater in Scotland than elsewhere in the United Kingdom. This applies to all aspects of practice—home visits, night calls, and, to a lesser extent, surgery attendances. Some degree of financial hardship to the Scottish general practitioner *vis-a-vis* his English colleague appears to be inevitable.

It is suggested that further investigations of this and similar problems in the N.H.S. is a matter of urgency, and that ancillary help should be provided without cost to general practitioners to enable them to provide the necessary data.