

with oral daily dose of 30 mg. of vitamin B₁ may be summarized as follows:—

(a) In 5 out of 12 cases (about 42 per cent) the diabetic condition could be controlled for a period of 21 to 30 days after the oral administration of 10 mg. of vitamin B₁ thrice daily.

(b) In 5 cases (about 42 per cent) the administration of thiamin had to be continued much longer (a maximum period of six weeks) to bring the diabetic condition under control.

(c) In 2 cases no improvement was noted.

(d) The improvement of the diabetic condition in (a) and (b) groups was found to be maintained even after the administration of thiamin was discontinued.

Comment.—It is to be noted that the published observations upon the effect of vitamin B₁ on human diabetes do not show a uniformity of results. Some of the publications appear to be made on scanty or insufficiently controlled observations. The present paper is based on systematic observations on 37 cases* of diabetes and the results obtained lead to the conclusion that in most cases of diabetes showing vague or definite signs and symptoms of vitamin B₁ deficiency, marked improvement in the carbohydrate tolerance of the patient as well as improvement of general health was obtained. In some of these cases complicated with neuritis there was a definite relief of pain but the amelioration of the associated symptoms such as weakness, paræsthesia and loss of appetite was even more marked. Apart from the control of diabetes in most of these cases there was in almost every one of them a feeling of well-being.

No claim is however made on the 'cure' of these cases but it may be noted that in a few of them, who appeared again from time to time, the improvement was found to have been maintained. Incidentally, it may be mentioned that the author has also observed that in some cases of diabetes having insulin treatment considerable reduction in the dose of insulin could be made if vitamin B₁ was simultaneously administered.

ALLERGY AND DESENSITIZATION

CURE OF BRONCHIAL ASTHMA WITH A BACTERIAL VACCINE

By K. C. PANT, M.B., B.S.

Medical Officer
and

K. C. SINHA, G.B.V.C.

Research Assistant, Indian Veterinary Research
Institute, Mukteswar-Kumaun

SENSITIVENESS on the part of individuals to pollen, dandruff and other agents of a protein nature is known to cause an allergic syndrome,

* Many more cases were also investigated but the data collected were incomplete because some of the patients left the hospital before the investigations were complete. The two tables given above indicate the type of results obtained in most cases in each group. All the results have not been given in order to minimize space in compliance with the wishes of the Editor.

commonly exemplified by a rash or asthmatic attacks. The allergic syndrome may vary from a simple nasal catarrh to acute attacks of breathlessness, fever, asthma and in some cases a generalized rash (urticaria). The well-known remedies range from the administration of calcium salts to the injection of adrenalin hydrochloride, but a permanent cure is often difficult, and the treatment consists rather in prevention and alleviation of suffering than a permanent cure.

The authors wish to place on record a case of bronchial asthma, responding miraculously to a course of mixed bacterial vaccine, when all other available treatment had failed. The patient was a local employee, male, of this Institute, about 36 years of age. He had an attack of acute bronchitis some ten years back of which he was cured. Since then he had attacks of bronchial asthma recurring every autumn, and lasting throughout the winter, and disappearing with the advent of the summer. Symptoms consisted of breathlessness (this increased during the night), cough and a hoarseness of the voice. Expectorant consisted of long strands of solidified fibrin and mucus. The patient revealed that he had tried various kinds of indigenous drugs, proprietary preparations, e.g. ephazone, dodo, etc., without any lasting effects. He was examined as an out-patient in November 1947. The patient had no relief from sulpha drugs, nor from penicillin. Milk injections did not prove useful. He looked anæmic, pale and jaundiced, and had lost nearly 30 lb. of weight. On enquiry it was found that he had developed a peculiar sensitiveness towards vegetables, e.g. cabbage, cauliflower, spinach, etc., but not to meat or eggs. He had no temperature, and the urine was normal. Next step taken was the bacteriological examination of sputa. Bacteriological examination revealed the presence of *B. hæmolytic streptococci* (Lancefields' group A), *Staphylococcus pyogenes aureus* (β toxin group), and *B. coli* atypical. A vaccine was prepared consisting of:—

<i>B. hæmolytic streptococci</i>	758 millions per cc.
(β toxin) <i>Staph. aureus</i>	609 " "
<i>B. coli</i>	757 " "

The details of the course of injections followed in this case are set out below:—

Number of injections	Total number of 19 injections administered as follows:—
Dose	0.1 cc., 0.2 cc., 0.3 cc., 0.4 cc., 0.5 cc., 0.75 cc., 0.75 cc., 1.0 cc., 1.0 cc. and further ten injections of 1.0 cc. each. The injections were given every fifth day.

No acid-fast rods were seen on repeated examinations of the sputa,

The patient experienced no discomfort except a slight rise of temperature after the first injection. The local reaction was a slight redness and pain. He exhibited a feeling of well-being and confidence after the second injection. He reported that he was very much better. After the third injection the harassing symptoms of breathlessness and cough disappeared and the patient was relieved completely of the attacks after a fortnight. There was a general improvement in the condition of the man. It may be added that Mukteswar is a hill station in the Kumaun Hills, situated at 7,700 feet above sea level. Winters are severe with heavy snowfall. The patient remained here in the winter of 1947 without any ill effects. He now takes part in the outdoor activities from which he was debarred for the last ten years. He has gained his normal weight and is in perfect health.

Discussion

It is difficult to say whether this case had its origin in some bacterial infection or some common allergens, e.g. pollen, dandruff, etc. The patient had been an animal attendant, looking after a group of experimental animals at this Institute. It seems possible that, under such conditions, dandruff and other agents along with a large number of streptococci, staphylococci, *B. coli* or other organisms may get into the system causing thereby bronchitis and asthma. The disease had a seasonal occurrence, starting in the autumn when pine dust and myriads of pollen grain float about freely in the air, and in the winter the malady became aggravated. The superiority of the bacterial antigen in this case over non-specific protein therapy of milk injections is not understood but the introduction of specific bacterial allergens may be worth trying in the treatment of such cases of bronchial asthma where other treatments have failed.

Summary

A case history of bronchial asthma and its successful treatment with mixed bacterial vaccine is described.

The authors wish to acknowledge the kindness of Dr. S. Datta, D.Sc., M.R.C.V.S., D.T.V.M., F.R.S. (Edin.), F.N.I., Director, Indian Veterinary Research Institute, Mukteswar-Kumaun, U.P., in allowing them to record this case.

SOME ASPECTS OF AMOEBIASIS IN MADRAS

By D. GOVINDA REDDY, M.D.

Professor of Pathology, Medical College, Madras

and
M. THANGAVELU, M.D.

Department of Pathology, Medical College, Madras

THE idea existed until recently that *Entamoeba histolytica* infection was more prevalent in the tropical and sub-tropical areas than in temperate

and cool regions; but now we know that even in the tropics, bacillary dysentery is more common than amoebic dysentery. Acton and Knowles (1924) state that bacillary dysentery is at least five or six times as common among the civil population of Bengal as amoebic dysentery. Fletcher and Jepps (1927) found that in 983 cases of dysentery in Kuala Lumpur no less than 77 per cent were of the bacillary type. Experience in the second world war has also confirmed the finding that bacillary dysentery is more frequent than amoebic infection. Payne (1945) analysed 2,000 cases of dysenteries observed in India both in the forward areas and the base hospitals and has, on the other hand, come to the conclusion that amoebiasis was as common as bacillary dysentery.

Our analysis of 2,641 cases treated in the General Hospital, Madras, both as in-patients as well as out-patients during the period of five years 1941 to 1946 is to be found in table I.

TABLE I

Analysis of dysenteric disorders treated in the Government General Hospital, Madras, for five years with mortality rate

Dysentery	Total number of cases	Percentage of incidence	Number of deaths	Percentage of deaths
Amoebic ..	1,011	38.3	62	6.13
Bacillary ..	1,345	50.9	134	9.9
Mixed ..	28	1.1	1	3.8
Non-specific	257	9.7	37	14.4

Age and sex distribution.—This is shown in table II.

In children the incidence of infection is low. Still amoebiasis is by no means unknown even in infants. Moore (1881) and Biggam (1932) reported amoebic abscess in children. Higher rates of infection have been reported by Willets (1914) in Philippino children. In an analytical study of 796 cases of *E. histolytica* infection, Chaudhuri and Rai Chaudhuri (1946) found that 2.5 per cent of infections were in children below 5 years. In Gharpure and Saldanha's (1931) series the incidence of infection in children below 10 years was only 1 per cent. In our study of 1,011 cases, nearly 8 per cent of the patients were in the age group of 0 to 10 years. Again, there is a decline in the incidence of infection after 50th year. The smaller incidence in young children is not due to immunity, but to a lower risk of exposure to infection; while the decline in the number of infections after middle life indicates a possible immunity developing as a result of previous infection.

All are agreed that males are more frequently infected than females and our figures are also in agreement with theirs (table II). The lower incidence of infection among the females is not of much significance, as it is definitely not due to inherent insusceptibility, but perhaps to more