A HUNDRED YEARS AGO

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THE VACCINE TREATMENT OF ASTHMA IN BENGAL

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NORMAN CHEVERS, in his classical work on *Diseases in India*, records that early in its history, Bengal became notorious for asthma, and that the reason why Clive was given command of the relieving forces, proceeding from Madras to Calcutta in 1756 after the Black Hole catastrophe, was because his senior officer, being subject to asthma, was considered unfit for service in Bengal.

Chevers himself contracted the disease in Lower Bengal, and suffered from it during thirty-five years' service in India, although always free when in England on leave, and after his retirement.

He thought some cases to be malarial in origin, and amenable to quinine, but it failed in his own case, although he had suffered from malaria as well for many years.

"After six doses of an autogenous vaccine the asthma attacks ceased, but three more doses were given. He has now remained free from attacks for two and a half years"

Asthma is still very prevalent in Calcutta. I have obtained most promising results in a number of cases by vaccine treatment on very simple lines. I would like to put my experience on record.

The vaccines

The vaccines used were always autogenous in nature. In brief, cultures were made on glycerine-agar tubes from freshly obtained sputum. Sub-cultures were made from the fine pneumococcal and streptococcal-like colonies, a number of them being taken up so as to get as many strains as possible in the tubes used for making the vaccine.

Five c.c. of sterile salt solution were added to each tube, which was then heated from 56° to 60° C for one hour; half per cent of carbolic acid was added, and after mixing well, the fluid was put up in doses of half and one c.c.

The first dose was half a c.c. which usually contained somewhere about 50 million organisms. If no febrile (but only a little local reaction occurred) a dose of one c.c. was given after five days, and repeated weekly. Occasionally, the dose was increased to one and a half or two c.c., but as a rule this was unnecessary. The technique is thus most simple, and it requires very little apparatus or experience to make the vaccine.

The organisms present varied considerably in different cases, while some of the vaccines were mixed cultures of more than one variety of coccus. Most frequently diplococci were found in the largest numbers, and sometimes nearly in pure culture. They were nearly always Gram-positive, and sometimes capsulated. Streptococci were also commonly present, and were sometimes the predominating organisms.

From a consecutive series of 13 cases

The following are brief notes on some of the earliest cases from what is a consecutive series of thirteen cases.

1 An Indian male, aged about 55, suffered from asthma for four years, with attacks every few days lasting several hours and sometimes all night. He had lost 20 lbs in weight. A voyage to Japan had failed to afford relief. After six doses of an autogenous vaccine the asthma attacks ceased, but three more doses were given. He has now remained free from attacks for two and a half years, has regained the weight he had lost, and remains in good health.

2 A European female, aged 30. Asthma began in February 1914; the attacks became very severe in August, lasting from four to five days, and continued to December 2014 when an autogenous vaccine was prepared. She was better after the first injection, and after five was free from the disease. She has remained well for over a year.

3 An Indian male, aged 35, had suffered from asthma for about two years. After five injections of an autogenous vaccine he has remained free from attacks for the last eight months.

4 A European male, aged 35, an engine driver, who had suffered for some months from severe asthma. He had six injections of an autogenous vaccine, and has only had very mild attacks since, always after prolonged night work. He is free from asthma when off duty, and thinks he would be quite well but for the trying nature of his duties.

5 A European lady, aged 25, who suffered for several years from very severe asthma about every two weeks, lasting for several days. She was pregnant, and attended regularly for injections for four months, obtaining very great relief and being more than once entirely free from attacks for a month at a time. During two months in a maternity home her doctor refused to allow her to have the injections, although she asked for them, and she suffered nearly continually from asthma. On her discharge, she again attended for the injections, and once more obtained great relief, the attacks being much less severe.

It is encouraging to note that several of these early cases have remained free from attacks for one to two years. Their letters leave no doubt regarding their satisfaction at the great relief that has been afforded to them. Nearly all thirteen patients were recommended to try the treatment by those who had previously benefited by it.

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