

PRACTICAL MEDICINE.

THE TREATMENT OF SPASMODIC ASTHMA.

By Dr. C. T. WILLIAMS, London.

(CONCLUDED.)

The dietetic treatment of asthma must be to a certain extent arranged to each patient's particular case, but, as a general rule, the earlier meals should be made the fullest, and but little solid food taken after two o'clock. Stimulants should be of the kind least likely to cause flatus in the stomach and intestines.

The medicinal treatment of spasmodic asthma must to some degree depend on its causation, and, in fact, on how far the cases are simply neurotic, or complicated with, and dependent on, inflammation, or, again, on a morbid state of the blood.

All the local causes, with the exception of inflammation, produce a form of asthma which is a simple neurosis resembling neuralgia; but inflammation of the bronchiæ, as a rule, leaves behind it some organic lesion, against which it is necessary to direct our treatment if we hope for any success. It will often be found in these cases that the treatment of the catarrh or of inflammatory symptoms accompanying it will considerably reduce, if not abolish, the spasmodic attacks, & the irritation of the vagus is dependent on the former. The combination of salines with small doses of such sedatives as stramonium, belladonna, and henbane, followed up by iodide of potassium, generally answers well, and these cases are perhaps the most manageable of any.

Again, where asthma is brought about by general causes acting through the blood we have not a pure neurosis to deal with, and our treatment must be directed to the particular morbid state of blood existing, whether it be gouty or syphilitic, or that producing the various skin eruptions. It is in this last form of humoral asthma, as it is called, that arsenic proves of such signal service, especially if the case be at all of a chronic order. It not rarely happens that both the asthma and the skin disease are cured by a steadily pursued course of the drug.

The great majority, however, of cases of spasmodic asthma are purely neurotic, and, like all neuroses, most difficult to treat, the result of drugs on different individuals varying greatly. On one belladonna acts like a charm; on another, by causing dryness of the fauces, it only increases the spasm. Some patients swear by stramonium, others by lobelia; a third class find relief in emetics. There is perhaps no department where empiricism is supposed to hold its sway more absolutely than in the treatment of neurotic asthma; for what between the pills, the papers, the cigarettes, and the pipes, all of which are warranted certain cures, the humble inquirer about the action of drugs may well be perplexed. Though

deprecating any attempt at an elaborate classification of the so-called antispasmodics, I would suggest that those of greatest use in the treatment of this kind of asthma may be arranged as follows:—

1. *Stimulant antispasmodics.*—A certain number of asthmatics gain relief by sulphuric ether, by strong coffee, and even alcohol. One of the most recently introduced of this class is the nitrite of amyl, which, by acting as a violent cardiac stimulant, sometimes relieves the spasm.

2. *Sedative antispasmodics.*—This is an almost endless class; and if the sufferer perseveres he generally gets relief from one or more members of the group, which includes datura, stramonium, atropa, belladonna, hyoscyamus, tobacco, lobelia, Indian hemp, and others. With regard to stramonium, belladonna, and henbane, their use was dictated, as is well known, by the experiments of Dr. C. J. B. Williams, who found that in animals poisoned by these drugs the bronchial tubes were dilated and incapable of being excited by any stimulus, and presented a marked contrast to the results of opium-poisoning, where the bronchial tubes were found contracted after death. Both stramonium and belladonna seem to act most beneficially in the slighter cases; but where they cause dryness of the throat, or even delirium, they seem to have little effect on the bronchial muscle. I found far more satisfactory results follow the use of the extract of stramonium made from the seeds, in quarter-grain to half-grain doses, than in smoking the cigarettes of the leaves, which, however, have a high repute. Lobelia is a valuable agent when used in sufficiently large doses; but to do much good it must be administered, not in doses of from ten to thirty minims, as is often done, but a drachm at a time, and repeated every three or four hours until some effect is produced. Tobacco when smoked has a sedative influence, but when taken into the stomach is a very unsafe remedy, it being necessary to push it to the extent of producing vomiting before relief comes, and oftentimes alarming symptoms of failure of the circulation follow. Indian hemp has been used, and with a certain amount of success, but it occasionally gives rise to curious head symptoms, and therefore requires careful watching.

Inhalations of various kinds, and smoking the different cigarettes often do good if the spasm be not very severe; but when this is the case we must expect them to fail, as they generally do, from the great difficulty of introducing them into the system. It is then that hypodermic injections of morphia come in useful, and, by inducing slumber, relax the spasm. The dose should be from one-sixth to one-fourth of a grain, repeated from time to time, and their use is at once contra-indicated by any blueness of the face or signs of obstructed circulation.

In very obstinate cases you will find that some-

times all drugs fail, chiefly on account of the difficulty of introducing them into the system, and the fit gradually wears itself out, generally through the carbonic acid accumulating in the lungs and inducing anaesthesia of the mucous membrane, and thus relaxing the spasm.

I can testify highly to the benefits of chloroform inhalation in the worst cases, in many of which it has acted like a charm, and sent the sufferer into a calm slumber, from which he has awoken free from dyspnoea. In others the relief is temporary and the spasm returns as severely as ever. The objections to the use of chloroform seem to me to be twofold. First, it sometimes in small quantities—i.e., less than one drachm—causes intermittence of the pulse; second, it cannot with safety be entrusted to the patients themselves.

For these reasons I determined to follow Professor Biermer's example, and try the nearest and safest approach to chloroform—viz., chloral,—and I selected for the purpose several cases where the fits were of long continuance, and marked by only short intermissions. The chloral was given in doses of from fifteen to twenty grains, in an ounce of peppermint water, every three or four hours. The effect in almost every instance was that the patients fell fast asleep after the first dose, and slept in a recumbent posture for a few hours, which they had not been able to do for days and weeks. On awaking there was a tendency of the spasm to return, which was generally obviated by two or three repetitions of the large doses. The breathing gradually became more free, except when considerable emphysema existed, and here the asthmatic spasm was removed, and only the habitual dyspnoea remained. The doses of chloral were then reduced, and gradually discontinued.

Having succeeded with the most troublesome form of asthma, I next tried the drug in cases where the attacks, though severe, are far more periodic, appearing at a fixed hour every night, and completely disappearing the following day. Here the chloral seemed still more successful, as a large evening dose generally afforded a good night's rest, and steady perseverance with the night draughts seemed to break the habit of the attacks, and eventually to get rid of them altogether. After this I have tried chloral in most forms of spasmodic asthma, and it is not to be wondered at that it has become a favourite prescription in my wards.

In the twenty cases in which I have used it, speedy relief has been obtained in all. In two this has only been temporary; in the other eighteen permanent. In three cases where the scruple doses have been repeated several times, the patients complained of queer sensations in the head, and in one of these, a very obstinate case, where the chloral was continued for days, the patient complained of feeling muddled. Vo-