

Case V.—A child, aged 6 years, was attacked more severely than the two preceding cases. She coughed more frequently; the whoop was louder and more prolonged, and food was frequently rejected with the result of causing a considerable degree of anæmia, so that it was necessary to administer stimulants and fluid nourishment to her, and of the three older children she was the last to recover.

In the last three cases a fair trial was again given to the extract of belladonna, and it was found, if not injurious, certainly ineffective in controlling the violence of the cough. This may be explained by its action on the sympathetic by which it produces flushing of the face, &c., and the inhibitory influence it exercises on the action of the heart. Seeing the unquestionable good effects of quinine in the cases of the younger children, I was tempted to give a trial to some other antiperiodics, *viz.*, the sulphate of beberia, liquor arsenicalis and the carbazotate of ammonia, but they proved quite inoperative, and I finally administered quinine to these children in the following mixture, the copiousness of the expectoration having suggested to me to combine alum (a remedy recommended by Dr. West in such cases) with it instead of giving the mixture containing the tincture of sumbul:—

| | | |
|------------------------|----|-----------|
| ℞ Quiniæ Sulphatis .. | .. | gr. xxiv. |
| Aluminis .. | .. | ʒi. |
| Tinct. Camphoræ Co. .. | .. | ʒss. |
| Mellis .. | .. | ʒss. |
| ℥ Aquam ad .. | .. | ʒvi. |

From two to four drachms to be taken three times a day according to age.

In none of these cases did the graver symptoms continue beyond the third week, and by the end of the fourth week they were either well or convalescent—an unusually short duration for the disease. I submit, especially when the unfavourable state of the weather in which they occurred, *viz.*, the rains, is considered.

A few remarks may not be considered here out of place regarding the contagiousness of whooping-cough, of which a doubt has been recently raised by Dr. Octavius Sturges. The evidence afforded in the first case, of the extension of the disease from it to the other children seems unequivocal; but more than this, there is good reason for believing that the cough was communicated by two of mine to Mr. Ellis' children, who, until this inopportune meeting, were quite free from cough, but who soon after gave evidence of being affected, as indeed was Mr. Ellis himself. A noteworthy feature in their cases was that the disease was considerably modified, the paroxysms were far less severe, the whoop was suppressed, and there was a complete absence of constitutional disturbance,—a result flowing, Mr. Ellis believes, from their having been treated in the initial stage with quinine, an opinion in which I am much disposed to concur.

MUSSOORIE.

HYPODERMIC INJECTION OF HYDRATE OF CHLORAL IN CASES OF MALIGNANT CHOLERA.

By ANUND CHUNDER MOOKERJEE, *First Grade Assistant-Surgeon, Mirzapur.*

At the suggestion of the Superintendent, Doctor Paske, I used hypodermic injection of hydrate of chloral in cases of malignant cholera that came under my treatment in the dispensary; the strength of the injection was grains vi to ʒi of which 10 minims were used in one injection. No particular part of the body was selected for the operation, and it was performed in places which seemed least resisting to the penetration of the needle. Four injections were used at a time, and repeated at intervals of an hour or longer, in proportion to the intensity of the symptoms. The effect of introduction of chloral into the blood in these cases, was very satisfactory; for out of 6 cases in which I used the injection 5 recovered, and they were all admitted in the perfectly developed algide state. The symptoms, which the injections rapidly relieved, were thirst and cramps, and with the diminution of these painful symptoms, there were re-appearance of the pulse and return of heat to the surface. Generally the improvement was so marked and steady, that in no case that recovered, were more than 16 grains of chloral required to be thrown into the circulation. In addition to the hypodermic injection of chloral, the patients had a mixture of carbolic acid, acetic acid and ether.

Remarks.—Hydrate of chloral appears to act as an antispasmodic by virtue of the chloroform it contains; it restores cir-

ulation by relaxing the blood vessels, on the spasmodic contraction of which depend the retrocession of circulation from the surface, and consequent loss of temperature.

Hydrate is also accredited with antiseptic properties; and, taking the hypothesis that when the cholera poison gets access into the organic system, it requires for its development and activity such conditions as are favourable for the production and maintenance of a fermentive process, hydrate of chloral being antiseptic, it might be assumed, not without a shew of reason, that when it comes in contact with cholera poison, it weakens its power and prevents its further development.

HYPODERMIC INJECTION OF CHLORAL HYDRATE IN TETANUS.

By P. CULLEN, M.D., *Civil Surgeon, Khundwa.*

BHOW, a tall, strong, muscular man, of the cultivator caste, about 36 years of age, was admitted into the dispensary with tetanus, which was said to have commenced four days previously without apparent cause; there was no history of any wound or hurt, or of exposure to cold or wet. His state on admission was as follows:—Muscles of neck and jaw were quite rigid, so that he could not open his mouth, and he had neither eaten nor drunk for 24 hours. There was severe opisthotonos, pulse small and thready, skin bathed in cold clammy perspiration, bowels constipated, and he had not slept for two days and nights.

A turpentine and castor oil enema was given, and extract Conii cum Pulv Camphor, ā, ā, gr. ii in ʒss. of brandy, every 3 hours ordered, but from the difficulty in opening his mouth, and in his swallowing, the greater part was always wasted. Seeing this, I ordered the hypodermic injection of hydrate of chloral, gr. v. in ʒss. of distilled water, three times a day. This was commenced the second morning after admission, and on the following night the spasms were much less, and he lay calm and easy, but did not sleep.

After this no other medicine was given, but the chloral continued three times a day, and on the third day he could slowly swallow milk and fluids; the spasms gradually decreased in number and severity, and at nights he got sound refreshing sleep: his appetite improved, bowels acted regularly, and his strength returned; by the 10th day he could eat bread and solids, and on the 15th morning was walking about, when the medicine, which since the 10th day had been used only twice a day, was stopped, and on the 20th day (3rd July) he left the hospital.

In this case the only drawback was that, during the first five days, the Hospital Assistant inserted the point of the syringe at the same spot, *viz.*—the upper part of left arm, which in consequence became swollen and inflamed, but when fresh points were selected for each subsequent injection, the inflammation subsided and no further ill-effects ensued.

Notices to Correspondents.

It is particularly requested that all contributions to the "Indian Medical Gazette" may be written as legibly as possible, and only on ONE SIDE of each sheet of paper.

Technical expressions ought to be so distinct that no possible mistake can be made in printing them.

Neglect of these simple rules causes much trouble.

Communications should be forwarded as early in the month as possible, else delay must inevitably occur in their publication.

Business letters to be forwarded to the Publishers, MESSRS. WYMAN & Co. and all professional communications to the Editor, direct.

Communications have been received from—

Surgeon G. C. ROY, M.D., F.R.C.S., Ranchee; Surgeon-Major Wm. CURRAN, Army Medical Department, Peshawar; Surgeon-Major W. J. MOORE, Rajputana; Sir JOSEPH FAYRE, K.C.S.I., London; Dr. J. SLANE, Civil Medical Officer, Mussoorie; Surgeon-Major F. R. HOGG, M.D., Army Medical Department, Meerut; First Grade Assistant Surgeon ANUND CHUNDER MOOKERJEE, Mirzapore; Surgeon T. E. B. BROWN, M.D., (Lond.) Lahore; Surgeon-Major P. CULLEN, Civil Surgeon Khundwa; Surgeon H. J. HAZLETT, 32nd Regiment, M. N. I., Trichinopoly; Dr. A. B. MORRIS, Civil Medical Officer, Kurseong, Darjeeling; M. Le DOCTEUR A. AMUSSAT, Paris; Assistant Surgeon RADHA NAUTH ROY, Alighur.

Communications which reached us too late for insertion in this Number, or those kept over for want of space, will appear in our next issue.