

and the increase of their use is causing a decrease of mortality. That in the last twenty years the death rate of puerperal convulsions has fallen from 32 to 14 per cent, and that post partum hemorrhage has lost half its victims.

### ANTIDOTAL PROPERTIES OF NITRITE OF AMYL IN CHLORAL POISONING.

BY JAS. MCCULLOUGH, M.D., ROCKWOOD, ONT.

Owing to the frequent administration of chloral as a hypnotic, both by the profession, and as a domestic medicine, and to the occasional unpleasant symptoms which manifest themselves after its use even in moderate doses, I have thought that the following case might not be uninteresting.

Mrs. D., æt. about 60 years, has been laboring under a mild form of dementia for a long time. The principal delusion by which she is haunted is, that her husband, a very harmless, inoffensive man, wants to kill her. She is occasionally free from these impressions for a month or more, but when they come on, she is very excitable, and gets but little sleep for weeks at a time. Her friends applied to me about two months ago, for something to enable her to sleep. I accordingly prescribed a mixture, each dose containing ten grains each, of pot. bromide and chloral, to be given every half hour at night, till three doses should be taken if required. This enabled her to get some sleep for a few nights, and she seemed to be about as well as usual. Was asked to prescribe for her again, on Sunday 28th September, with the urgent request to make the mixture "a little stronger." This time I ordered 15 grs. each of pot. bromide, and chloral, every half hour at night, till three doses were taken, if required.

Sept. 30th.—2 p.m. Was sent for in a great hurry to see her, the messenger stating that she was dying. On entering the room, I supposed from her appearance that she was dead, as there was extreme pallor of surface, and no observable signs of respiration. On examining the wrist however, I found a pulse of moderate volume and tension; the pupils were much contracted. I tried to rouse her, but found her profoundly insensible; tickling the soles of the feet did not excite reflex action, nor did the finger placed on the eyeball cause any attempt to close the lids. On enquiring how

much of "the mixture" she had been taking, I was told that a dose had been given at 7 a.m., and about half a dose again at 11 a.m., but as she had got out of bed whilst her daughter was out-side, I felt satisfied that she must have taken a large quantity herself, as the bottle was found to be empty.

Having read an article by Dr. Coghill, copied from the *Brit. Med. Journal*, in which nitrite of amyl is highly spoken of as an antidote for chloral poisoning, I determined to give it a trial. I accordingly put 5 drops on a handkerchief and held it to the mouth and nostrils; in a few moments the extreme pallor gave place to a healthy glow, and the respiration which was before very superficial, became at once deep and full. In about half an hour after this, she turned partially over in bed, but could not yet be roused to consciousness.

4.30 p.m. Respiration again becoming feeble; pallor returning, and pulse much weaker; I repeated the inhalation of 5 drops of the amyl, with the same results as to the improvement of respiration. There was now a slight attempt to close the lids on touching the conjunctiva. Gave an enema of milk and whiskey (brandy not being at hand), and ordered some beef essence to be made, intending to use it by enema on calling again, should she not be able to swallow.

6.30 p.m. On being aroused she took a little beef-tea and spoke a few words quite cheerfully, but immediately dozed off again.

Oct. 1st. Found that she had slept all night, except when aroused to take a little beef tea. Complains of headache, but is otherwise about as well as usual.

From the apparently satisfactory results in this, and the case above referred to, from the use of nitrite of amyl in averting the toxic effects of chloral, I feel inclined to think, that in it we have a valuable antidote, being easy of administration and prompt in its action, and would strongly recommend a trial of it in any case where alarming symptoms arise from the exhibition of the above mentioned drug. And although I am not aware of its being used as an antidote for similar symptoms arising during the administration of chloroform, I should judge, reasoning from analogy, that it might be useful here also, provided respiration were not entirely suspended; for the toxic effects of chloral are said to arise from the elimination of chloroform in the circulation.