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[Reprinted from THE MEDICAL NEWS, May 4, 1895.]

THE TREATMENT OF OPIUM-POISONING
BY POTASSIUM PERMANGANATE.

To the Editor of THE MEDICAL NEWS.

SIR: It is now nearly a year since an editorial regarding the permanganate treatment of opium-poisoning appeared in the *Journal of the American Medical Association*, May 19, 1894, which concluded with the statement that "a new antidote to morphin was not urgently demanded, since the treatment already in general use is very efficient, and, as a rule, successful.¹ No argument has the power that facts possess, and it is for that reason that an answer to this editorial is more appropriate now than it would have been a year ago.

First of all, the expression "a new antidote to morphin" is, strictly speaking, incorrect. The editor of the *Journal* should have said "an antidote to morphin was not urgently demanded." There was no antidote to morphin known up to the time I made my humble efforts in that direction. Does the writer of the editorial consider belladonna and its alkaloids as opponents of morphin? Can one narcotic be a real opponent to another narcotic? Many authorities, among them Brown-Séquard and J. Harley, dispute an antagonism between these two narcotics. Harley concludes that in medicinal doses the essential effect of morphin (hypnosis) is both

¹ My attention to this editorial was called by Dr. T. S. Carpenter's report in your esteemed paper of June 23, 1894, of a case of accidental morphin-poisoning, in which the permanganate had rendered him signal service. Dr. Carpenter criticises the editorial, but from a standpoint differing from mine.



increased and prolonged by the action of atropin, whether introduced previously or at any time during the operation of the former. Dr. John S. McLain, of Washington, in a paper entitled "Narcotics and Narcosis in Children" (see *Archives of Pediatrics*, June, 1893), says:

"The opinion which has been gaining ground for several years seems now well established that belladonna and its alkaloids are of little use in the treatment of opium-poisoning, W. H. Thompson going so far as to state that 'the cases in which the opium-narcosis is really dangerous are those in which belladonna is useless, if not injurious.' Lenhartz, in his experiments on dogs, came to the conclusion that in no case did the alkaloid have any effect upon the more dangerous appearances, the coma, cramps, and convulsions, and hence he holds that the opposing power is limited and of no avail in serious cases, the atropin increasing the heart-depression already brought about by opium, and that 'the physiologic antagonism between atropin and morphin is not established by a single authentic observation.' Dr. T. D. Smith, of Louisville, Ky., writing upon the subject, remarks: 'In order to root out more rapidly the prevalent error as to the use of atropin, it would be better that it be not mentioned at all in connection with the treatment of opium-poisoning.'"

As to emetics, they cannot be called antidotes in the true sense of the word; besides, they are utterly unreliable in narcotic-poisoning, and are simply inducive to loss of precious time. Dr. McLain, in the paper above mentioned, says "that it is a great mistake to attempt to induce vomiting by copious draughts of hot mustard-water; forty grains of ipecac in water, twenty grains of zinc sulphate in water, etc., as recommended in many of our text-books." Another objection, he says, to flooding the stomach with these fluids is that they themselves serve to dissolve the poison, whatever it may be, and hence aid in its more rapid absorption.

On the same ground he objects to copious draughts of black coffee.

On the other hand, I have shown beyond a doubt that the contact of permanganate and morphin results in rendering the latter instantaneously harmless, and therefore the permanganate is the only antidote to opium known so far. It cannot be styled a new antidote. There does not exist an old one. If it does exist, I should like to know its name.

It is with some satisfaction that I now can point to about thirty-five cases of opium-poisoning in which the antagonist has proved its great value. Yet how much quicker would it have acted had it been employed at the very beginning of medical assistance, instead of allowing so much valuable time to be lost by resorting to other plans of treatment. First destroy the poison, rid the body of its foe, and then Nature will be ready and quick enough to restore impeded functions; the damage will then be repaired without difficulty. To remove the obstacle and to annihilate the poison should be our very first duties. It is truly a miracle that the potash-salt did accomplish so much when circumstances combined to defeat its success. Even in the case I had (see *Medical Record*, March 2, 1895) my colleague legitimately resorted to the usual methods for an hour-and-a-half before I had an opportunity to invoke the aid of the permanganate. Still the patient comparatively quickly responded to it, and my mind was relieved of a great burden; for, had I lost the patient, the entire odium would have fallen upon the salt of permanganic acid.

I shall now make a statement which may create severe comment or may place me in the light of an enthusiast, but which statement the experience of the future will justify and uphold. I say that any physician arriving at the side of a person suffering from opium-poisoning, who does not at once administer to that person

a sufficient quantity of the permanganate, commits an act of gross negligence.

The ambulance-surgeon should first administer the potash salt before conveying the patient to the hospital. Is it not unjust, unreasonable, to submit a patient to the shaking and rattling of the wagon, which is bound to promote the absorption of the poison by the stomach? Every physician, every ambulance-surgeon, should keep the permanganate of potash among his emergency drugs. Let the stomach-pump alone, for its use only increases the cerebral congestion already present. Discard atropin; do not superadd one narcotic to another. If one need to strengthen the heart-action, resort may be had to strychnin hypodermically. If one wish to give coffee, let it be given as an enema. Artificial respiration is necessary, and let the patient be kept awake, but not too forcibly, by the use of cold affusions; but, above all, let us not neglect the thorough and judicious administration of the powerful opponent of the narcotic in question.

It should be given to meet three different indications: First, it should be given by the mouth, well-diluted, to annihilate any opium or its alkaloids that still may be in the stomach. If the patient is unable to swallow, the antidotal solution can be administered through the nose with the aid of a hard-rubber catheter, a piece of rubber-tubing, and a funnel. These appliances can easily be procured. One grain of $Mn_2O_8K_2$ annihilates one grain of morphin. It should always be diluted to the utmost possible degree. The second indication is to destroy the morphin contained in the circulating blood through hypodermic injections of the antidote—again as well diluted as possible. The third indication is to decompose the alkaloid that returns from the circulation to the stomach. This is accomplished by giving the patient by the mouth, from time to time, weak solutions of the potassium salt, say one grain to a tumblerful of

water. No coffee or other liquids—nothing but weak permanganate solutions should enter the patient's stomach. Such a plan of treatment will not fail to bear gratifying results, and these in turn will tend to hasten the general acceptance of that important therapeutic truth, that potassium permanganate is the antidote to opium, its preparations and alkaloids.

Very respectfully yours,

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103 WEST FIFTY-EIGHTH ST., NEW YORK,
April 20, 1895.

