

THE USE OF CARBONATE OF AMMONIA IN CEREBRAL HEMORRHAGE, THROMBOSIS, AND EMBOLISM.

Dr. R. C. Van Wyck thus concludes an article in *Gaillard's Medical Journal* for August:

The advantages I claim for the carbonates of ammonia in the treatment of cerebral hemorrhage, thrombosis, and embolism are as follows:

1. As a diffusible stimulant to the general circulation, relieving the anæmia which is present in the brain, increasing the cutaneous circulation, and inducing perspiration—relieving in this way intercranial pressure.

2. By its direct action in dissolving the clot. The only agents which possess this property are the alkalis, and the most effective of these is ammonia.

3. In œdema and congestion of the lungs, so often seen in apoplexy, the use of this salt will often relieve the existing condition, partly by its stimulating action on the terminal capillaries, and also by its expectorant action on the bronchomucous membrane.

4. By keeping up the alkalinity of the blood, and preventing further thrombosis.

I do not claim this drug as a specific, but only an auxiliary to other remedies. In the treatment of a case of cerebral hemorrhage, the following would seem to me the order of treatment:

1. The prodromal symptoms which threaten an attack of apoplexy, by prompt venesection and catharsis.

2. To relieve the period of reaction after paralysis has taken place by arterial sedatives, preferably aconite.

3. To remove the exudation and all retrograde changes in the clot, anæmia, pulmonary congestion, and further thrombosis, by the free use of carbonate of ammonia.

4. To support the system by nourishing yet unstimulating diet, and by the use of medicines which nourish the brain tissue, such as syr. lacto-phosphate of lime, cod-liver oil, and the phosphide of zinc.

5. To increase the muscular development by massage-frictions, electricity, and strychnia.

The carbonate of ammonia should never be given in cerebral hemorrhage until the period of reaction has fully taken place, say from ten days to two weeks.

It should then be given continually for at least a month or more, or until the retrograde changes in the clot are accomplished.

In thrombosis and embolism if the diagnosis can be clearly made it should be given at once.

The dose used was 5 grs. three times daily in 3ss. of the solution liquor ammoniæ acetatis.

There is one class of cases in which the carbonate of ammonia has not acted well in my hands, viz., cerebral hemorrhage associated with interstitial nephritis and hepatitis. In these cases I

have had good results from the phosphate of sodium, 20 to 30 grs. three times daily, in the infusion of dandelion given after meals, and small doses of corrosive sublimate, 1-24 gr. three times daily before each meal. I have sometimes combined it in a pill with digitalis and squill.

MEMBRANOUS CROUP; DIPHTHERITIC CROUP; TRUE CROUP.

The April number of *The American Journal of the Medical Sciences* contains an elaborate clinical study of true croup, from the pen of Dr. J. Lewis Smith, of New York. He fully considers the etiology, anatomical characters, diagnosis, prognosis and treatment. What ever the cause, the anatomical characters, the clinical history, and the required treatment, are so nearly identical that attempts to differentiate the disease when produced by other agencies than diphtheria from that due to diphtheria, have proved futile and unsatisfactory in localities where diphtheria occurs except in a few instances, as, for example, when croup has been manifestly caused by swallowing or inhaling some irritating agent.

Dr. Smith holds that inflammation of the laryngeal and tracheal surface, whatever its cause, whenever it reaches a certain grade of severity, may be attended by the exudation of fibrin and the formation of a pseudo-membrane; but such a result more frequently occurs in the inflammation caused by diphtheria than in that produced by other agencies. In diphtheria a moderate laryngo-tracheitis is attended by the pseudo-membranous formation. Dr. Smith's experience leads him to believe that not more than one in eight cases of croup has recovered by medicinal treatment which began in the first week of diphtheria, and in which the symptoms were so pronounced as to indicate more or less laryngeal stenosis. The exudation in the first week of diphtheria, or in its active period, occurs so rapidly, and in such large quantity, that no one of the medicinal agents or modes of treatment, which physicians commonly prescribe, is sufficiently prompt in its action to prevent the formation of the pseudo-membrane to an extent that soon endangers life.

Croup occurring in the second or third week of diphtheria, since it is attended by less abundant and less rapid exudation than when it occurs during the acute stage, can be more successfully treated under the persevering use of solvent inhalations, and a larger proportion than one in eight, perhaps one in three, recovers by the early and continuous or almost continuous use of inhalations.

Still the mortality is so large, and the suffering so great in croup, at whatever stage of diphtheria it occurs, that we cannot rely on the slow action of medicines or inhalations, and surgical treatment is in most instances required to diminish the suffering and afford the best chances for saving life.