

nearly fulfil the indication than any other agent.

Of the vegetable tonics, cinchona, or its important alkaloid principle, quinia, is more commonly employed than any other medicine, and there is probably none which answers the purpose better. The compound tincture of cinchona, and the fluid extract, have been used and recommended by physicians of experience; but quinia is more commonly employed, and is regarded by a large proportion of physicians as the most useful of all therapeutic agents in the treatment of this malady. But there is great difference of opinion in regard to the quantity which is required each day, or the size and frequency of the doses. It is sometimes administered in small doses, as one grain every three or four hours, for its supposed tonic effect; and again in doses sufficiently large to produce an antipyretic effect, as from twenty to forty grains per day. It is prescribed by some physicians in two or three large doses per diem, as ten or fifteen grains, and by others in small and frequent doses. That quinia does not exert any special or peculiar action in diphtheria, and is beneficial in the same way, and no further than in other acute infectious diseases, is, I think, generally admitted by the profession; for large doses do not exert that controlling effect which we would expect from a specific.

The internal treatment which I have found most satisfactory for a child of five years is the following:—

*R.* Quinæ sulphat. ʒss; elix. adjuvantis (Caswell and Hazard's), vel elix. tarax. comp. ʒij. Misce. Give one teaspoonful every two to four hours; and hourly, between, one teaspoonful of the following:—

*R.* Tinc. ferri chloridi, ʒij; potas. chlorat. ʒij; syr. simpl. ʒiv. Misce.

The tonic effect of the iron is not impaired by the chlorate of potassa, which is added to the mixture, on account of its local action on the inflamed surface.

The citrate of iron and ammonia alone, or in combination with carbonate of ammonia, may be given in two grain doses, dissolved in simple syrup, in place of the above mixture, when the inflammation of the fauces has

considerably abated or is moderate. If the patient improve, and the disease begins to abate, the intervals between the doses may be lengthened, but the tonics should not be entirely discontinued, until the patient is far advanced in recovery, on account of the dangerous sequelæ, which take their origin in an impoverished state of the blood.

*Local Treatment.*—It is important to keep in mind the purpose for which local measures should be employed, as stated above. It is to reduce the inflammation of the mucous surfaces, and destroy the diphtheritic poison, and contagious properties in the pseudo-membrane, and to destroy the septic poison, and prevent its absorption, if any forms. forcible removal of the pseudo-membrane, irritating applications, the use of a sponge or other rough instrument, for making the applications, should be avoided as likely to do harm. The applications should be made either with a large camel's hair pencil, or, better for most of the mixtures employed, with the atomizer. The hand atomizer, like Delano's, which is cheap and of simple construction, while it carries a heavy spray from the curved tube, which is introduced over the tongue, is very useful, but the constant spray of the steam atomizer is more effectual, and is preferable in severe cases.

The following mixtures I am in the habit of using with the atomizer:—

1. *R.* Acid. salicylic. ʒss; glycerinæ, ʒij; aq. calcis, ʒviij. Misce.

2. *R.* Acid. carbolic. gtt. xxxij; glycerinæ, ʒij; aq. calcis, ʒvj. Misce.

3. *R.* Acid. carbolic. gtt. xxxij; potas. chlorat. ʒij; glycerinæ, ʒij; aquæ, ʒv. Misce.

Half a dozen to a dozen compressions of the bulb of the hand atomizer cover the surface of the throat more effectually with the liquid than can be done by several applications of the brush, and it is usually not dreaded by the patient. Diminution of size of the pseudo-membrane under the use of the spray is a favourable sign, but if it do not diminish, its presence can do little harm, provided that it is properly disinfected.

In many cases of diphtheritic inflammation of the fauces the spray suffices for local