

It is, I think, peculiarly interesting to observe how a functional disorder may produce organic disease. Thus, the alteration of secretion and consequent drying of the pharynx is in the first place a purely functional disturbance; but long-continued drying of the pharynx produces changes in its membrane of a permanent kind, which even the restoration of function does not remove. Changes of a similar kind to those which we observe in the pharynx probably take place in the stomach.

Three principal elements of treatment I wish to enforce:—Bromides, Warmth, and Rest. I have mentioned rest last, not because I consider it the least important, but because, although easy to prescribe, it is difficult of attainment. The sorrow, the worry, the annoyance, are beyond our power of removal, and equally uncontrollable by the patient, at least in his present condition. He requires mental rest and physical ease, which are best obtained by change of occupation, not by mental and physical inactivity.

Much the same applies to diet. It should be non-stimulating, and the quantity of tea should be curtailed.

The patient should be warmly clad from head to foot.

Some bromide in gr. xv to xx doses in a carminative mixture is the best medium in these cases. They do not stand a tonic treatment with strychnia, arsenic, or iron.

The gas forming the bubbles is apparently secreted with the saliva and not intermixed with friction or agitation.—Dr. Batten, in *Med. Press*.

DIPHTHERIA: WITH SPECIAL REFERENCE TO ITS TREATMENT WITH HYDROGEN-PEROXIDE.

Dr. Dickey (*Annals of Gynecology and Paediatrics*, Dec., 1890,) says: I know of nothing in the whole materia medica that will dissolve the diphtheritic membrane so quickly and thoroughly, and yet leave the healthy mucous membrane intact. When applied to pus or diseased tissue oxygen is set free, which appears in the shape of gas bubbles, and a frothy effervescing mass is to be seen; this is kept up for two or three minutes. I am in the habit of diluting it 25 per cent. (although it can be used full strength) and applying it with an atomizer. This can be repeated until effervescence ceases, when the membrane will be found to have practically disappeared, leaving a whitish surface. When the membrane reappears it is again made use of. If the nose is invaded, it can be applied there with equal satisfaction. I am in the habit of having all the watery secretions from the nostrils absorbed with blotting paper rolled into conical shape and gently inserted into the nose,

or by absorbent cotton wrapped on the end of a small stick, either of which is burned as soon as used. The peroxide is then applied. The keeping of the nostrils as free from secretions and membranes as possible is a matter of the utmost importance, and one too frequently over looked. The poison is more rapidly absorbed from here than from any portion of the mucous tract, being very liberally supplied with lymphatics. In children old enough to use a gargle, I have them use chloral hydrate in glycerine and water soon after using the hydrogen peroxide. This serves a three-fold purpose; it is an antiseptic, a local sedative and an anti-spasmodic. In children not old enough to use a gargle it may be applied with the DeVilbiss atomizer. At the same time bichloride of mercury, tincture of the chloride of iron, with or without chlorate of potassium, or such other remedies as may suit the judgment of the individual prescriber, or be applicable to the case in hand, may be used. For my own part, I prefer the bichloride. Coupled with this should be given good, digestible food at regular intervals, of which milk should form the basis, and such stimulants, from time to time, as the individual case may demand. The constitutional treatment is not less important than the local, for such a virulent poison as we have to deal with in this disease saps the vital forces with wonderful rapidity. Consequently this must be attended to from the outset. When the temperature exceeds $103\frac{1}{2}^{\circ}$ F., I have the entire body sponged with tepid water as often as may be necessary to bring it below this point. Pellets of ice internally will allay thirst and relieve very materially the turgid condition of the blood vessels, and should not be omitted. Ice may also be applied to the throat in a rubber bag or a bladder, relieving greatly the inflamed glands. This, briefly outlined, is the treatment in the more malignant forms of diphtheria which has given me the best results, and I attribute them to the use of the peroxide of hydrogen. It is true the other remedies used are excellent auxiliaries, but without the one I am confident the others would have proved insufficient. In milder cases, where the false membrane is not great and the toxæmia of a mild character, a gargle or spray of lime water reinforced with bicarbonate of soda, which increases its alkalinity, makes a very efficacious remedy.

As the secretions of the throat in diphtheria are acid, the addition of the bicarbonate adds greatly to its efficacy as a topical application. This, with the internal administration of suitable doses of chlorate of potassium (remembering that the chlorate in large doses has a very deleterious effect on the kidneys) in dilute hydrochloric acid, will be good treatment. It will be seen that I have avoided all reference to the use of swabs and brushes for the removal of