

Progress of Medical Science.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 16th, 1876.

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THE TREATMENT OF DIPHTHERIA.

The object of the paper read upon the above subject by Dr. C. E. Billington was, to contribute to the proof of the doctrine that the primary disease was a local affection and the source of constitutional manifestations. The doctor admitted that there were many cases which seemed difficult to explain upon this theory, but claimed that the exceptions were too few to weigh against that doctrine, which he couched under three heads:

1st. In the great majority of constitutional cases which have been under his observation, the local affections have been much more severe than in the other class of cases;

2d. The constitutional disease, as he had seen it, had been, not antecedent to, but consequent upon the local affection;

3d. The results of treatment on the principal of local disinfection strongly confirmed this view. The paper was based on observations made in 300 cases, of which 150 were under his own care; and the great majority of all the cases occurred in patients under 12 years of age.

Three elements entered into the study of the treatment of that affection:

1. Contagion; 2. Inflammation, and the formation of the pathological exudation and the accompanying nerve irritation, symptomatic fever, etc.; 3. The resulting specific and septic poisoning.

The indications in the treatment were, 1, to destroy the contagion; 2, to subdue the inflammation, which was most effectually done by removing its cause; and 3, to combat the absorption of the poisonous element from the spot at which the local disease was manifested.

Failing in these essentials, constitutional remedies were useless. In other words, local disinfection was the proper treatment for diphtheria. The physician should aim to destroy the poisonous exudation and fluids; but, at the same time, should exercise the utmost care, and not irritate the part affected.

That gave rise to two questions:

1. What were the best medicinal agents that could be employed for that purpose?

2. What was the best method of employing them?

The tincture of the chloride of iron was placed at the head of the list of remedies to be used as local disinfectants; and it also possessed other properties, which justly commended it as an agent to be employed in the treatment of diphtheria.

Lime-water, glycerine, chlorate of potash, carbolic and salicylic acid, and sulphite of soda were also mentioned in this connection.

With regard to the manner of employing these remedies for the purpose of obtaining their disinfectant influence, Dr. Billington recommended their internal use rather than topical application by means of a camel's-hair brush, sponges, etc. By that, how-

ever, he did not wish to exclude spray and the local use of remedies by means of the soft brush, for these means might be employed in certain cases with great benefit; but they should be used with the utmost care, lest a mechanical irritation should be produced. The following prescriptions were given:

R Tinct. ferri perchloridi..... ʒ iss.
Glycerini,
Aquæ, ā ā ʒ i.
M.

A teaspoonful to be given every two hours. For children under two years of age, one drachm of the iron was a sufficient quantity to enter into the prescription. When vomiting was a troublesome symptom, it sometimes became necessary to omit this mixture.

It was also recommended to administer teaspoonful doses of the following mixture, every two hours—that is, alternate with the above; but the administration should come after an interval of thirty minutes.

R Potassæ chloratis..... ʒ ss.
Glycerini..... ʒ iij.
Liquoris calcis, ad..... ʒ iij.
M.

The frequency of this dose was insisted upon by Dr. Billington as an item of very great importance.

It was also recommended to give teaspoonful doses of the following mixture, in addition to those already prescribed.

R Acidi salicylici.....grs x to xv.
Sodæ sulphitis ʒ ss to grs. xlv.
Glycerini..... ʒ ss.
Aquæ, ad..... ʒ iij.
M.

It was recommended to use the following mixture in the form of spray for several minutes at a time, and just before the administration of each dose of medicine.

R Acidi carbolici.....m. x.
Liquoris calcis..... ʒ iv.
M.

Applied by means of an ordinary perfuming atomizer. The doctor had found that children under two years of age so resisted the use of the atomizer that it was not available. He also recommended early resort to the nasal douché, and if offensiveness of the breath persisted, the nasal syringe should be resorted to and the salicylic mixture already mentioned.

For tough, unyielding membranes, the following was recommended:

R Tinct. of the chloride of iron.....two parts.
Glycerini.....one part.
M.

Applied with a camel-hair pencil, but the greatest care should be exercised not to treat the affected parts roughly.

Dr. Billington regarded quinine as worse than useless, especially in young children, except as an agent to reduce the temperature. It was to be used