Willard (S. D.) Prof R. Dunglison with regards of S. D. Willa

DIPHTHERITE:

ITS PREVALENCE IN ALBANY.

Read before the Medical Society of the State of New York,

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DIPHTHERITE.

Within a few months past, Albany has been visited by an epidemic sore throat malady, recognized as the distinct disease diphtherite.

In my present remarks, it is not my design to enter into an elaborate consideration of the subject, but rather to present a few facts, with such statistics of fatality from the prevalence of the disease in this city, as I have been able to gather.

There are two diseases to which diphtherite bears marked similarity; one is cynanche tonsillaris, the other is croup; but it exists independent of both of these, variously modified by the epidemical influences that produce it.

Just as in the prevalence of cholera, there is a tendency to a disturbed condition of the mucous coat of the bowels, which is produced by the modified action of whatever agent causes cholera, so co-existent with the prevalence of diphtherite, and doubtless induced by the same atmospheric condition, there prevailed among our adult population, in a mild form, a diffusive inflammation of the throat.

In some of these cases, and I estimate them to have been more than two* thousand, there was but a simple blush upon the fauces, in others the palate, uvula and tonsils were in a high degree of vascularity. The general health and appetite of these were undisturbed. The only sensation experienced, was that of dryness and roughness of the parts affected. This morbid condition yielded readily to the application of nitrate of silver, an astringent gargle, or in a few days resumed its normal state without any aid whatever. Many such cases came under the observation of every physician.

Simultaneous with the appearance of diphtherite, as a modification of that disease, and produced by the same influence, there

*It has been suggested to me that this is a small estimate.

occurred also cynanche tonsillaris. This form of the malady prevailed in the recent epidemic, among children and young persons, being mostly confined to those under twenty years of age. Upon looking into the fauces, it was at once observable, that the tonsils were so swollen as nearly to touch each other. The high degree of inflammation comes on suddenly, and is followed by the suppurative process, becoming more extensive, and involving the whole tonsils, which are in some instances, entirely thrown off in the suppuration; afterward resolution may ensue. In a few cases, the tonsils have had from the very outset, a dark, mahogany color, and the ulcers on their surface assumed a greenish cast. These have been followed by gangrene, mortification, and consequently death. But the disease diphtherite has prevailed among children, mostly under the age of twelve years. Its onset is sudden and insidious, the false membrane having been formed to some extent, when the first symptoms of illness attracted the attention, and occasionally when the attention was directed only by the alarming condition of other members of the same family. The membrane rapidly extends upon the palate, tonsils, rima glottis, into the larynx, and trachea, producing mechanical obstruction to respiration, and the patient dies in precisely the same manner as in croup. In some instances the first examination of the patient showed the tonsils swollen and covered with a pseudo membrane of a pearly or oyster-like appearance; such were almost uniformly rapid in progress, and terminated fatally in two or three days. Those more slow in their progress, developed a blood poison, and after several days, the mucous membrane of the nose, fauces and bronchi, throw of a thick offensive acrid secretion, as so often exists in scarlatina. The congestion extends to the cellular tissue and skin about the throat and chest, the parotid glands become swollen, and there follows before death, incipient mortification and decomposition. In the progress of the disease, where it advances less decidedly to an unfavorable termination, there is a strong effort on behalf of nature to separate and throw off the pseudo membrane from the the fauces, and to expel it from the breathing passages. The line of demarkation forms in four or five days, and the separation may often be hastened by seizing portions of the membrane with forceps, and gradually and gently detaching it; but the tendency on the part of the disease is to reproduce it, so that when large patches of it have been expelled by expectoration or otherwise, it has been speedily reproduced, and life destroyed.

Diphtherite, like influenza, is doubtless a zymotic disease, and the formation of the membrane upon the fauces one of its manifestations.

In its pathology it is nearly allied to scarlatina. Deprive a case of scarlatina maligna of its efflorescence, and such cases do occur, and it would require a delicate diagnosis to distinguish it from some of the modifications of diphtherite.

But these are points upon which I hope gentlemen of the society, whose observations have been more extended than my own, will take occasion to express fully their views.

During the last week I made an effort to get the mortuary statistics from this disease in Albany, and for this purpose called upon nearly every practitioner in the city. With only *three* exceptions, the information was promptly and kindly afforded me. There are reported as having died one hundred and eighty-eight, nine of which were without the limits of the city. Within the city one hundred and seventy-nine cases. The first case occurred in the south part of the city, as early as the second of April, and the second case is reported on the twentieth of the same month, in the same section of the city. The last cases occurred on the 26th of February and 15th of March,* showing that the disease is not yet extinct. From April, no cases are reported until June; the epidemic then increased slowly, there being but few cases until September. The greatest number of deaths took place in November.

But three adults are reported as having died; the remaining number are children, and mostly under the age of twelve years. In fifteen families there were in each two deaths; in four families there were in each three deaths; in one family there were four—the whole number of children died.

I add the monograph of a single case. It occurred in the family of Dr. L. G. Warren, who has kindly placed the account at my service. "On Monday, January 24th, my son, aged nine years, was in his usual health; showed no symptons of disease, and went to bed well. He awoke about three o'clock in the morning of Tuesday, the 25th, with nausea; after vomiting he fell asleep. At eight o'clock, I discovered swelling on the left side of the neck. He complained of pain and stiffness in the back of his neck. On examining his throat I found the tonsils enlarged, and on each a spot of thick membraneous deposit as large as a quarter of a

* Twelve of these cases have been reported since this paper was read, on Feb. 2.

dollar; it extended down behind the velum. There was fever present which continued for thirty-six hours, with pulse at one hundred and thirty. Afterwards the frequency of the pulsations diminished to one hundred. The skin became moist; the membraneous deposit increased, completely filling the passage, and the child died on the fourth day of the disease." The termination of this case was more than usually rapid.

I have not been able to ascertain at this late day, accurately in relation to the sex, but so far as the statistics I have procured extend, they show the fatality to be one-third greater with the girls.

The population south of State street is as 30 to 27. The fatality in this disease was three-fifths greater south of State street.

The average duration of the disease in fatal cases is from seven to ten days. The period of convalescence is uncertain, usually extending through two or three weeks; but in some cases, after a longer interval than this, inanition may supervene as a sequel of the disease, and destroy life. Without full statistics, it appears that about half of the cases die *croupy*.

I shall offer but a word in relation to the treatment of diphtherite. The local remedies indicated are such as shall prevent the further extension of the psuedo membrane, and hasten its detachment when formed. It is a disease affecting the whole system. The strongly marked tendency to debility and prostration calls early for stimulating and invigorating treatment. The prompt administration of tonics is clearly called for, and the one which I regard as most to be relied on is quinine, in conjunction with some preparation of iron.

Local treatment is palliative. The application of nitrate of silver or a mineral acid to destroy the secreting surface, or Labarraque's solution of chloride of soda, as a gargle, to dissolve the forming membrane, have been severally used with various degrees of success; but with young children they are all to a great extent impracticable.