

unquestionable that its dissemination was owing to its contagious nature, contact with, or close proximity to one affected with the disease was the principal mode of communication. There were instances, however, in which the poison was conveyed several miles to children by a parent not ill with the disease.

It might be asked why the disease should spread with such terrible virulency from case No. 11 in the series; whilst in the first family the infection apparently exhausted itself at its starting point. It will be remembered that the first premises attacked are situated on the very verge of the parish and the surrounding neighbors, mainly English speaking people, were thoroughly imbued with ideas of the infectious nature of *diphtheria*, which ideas were imparted to their more immediate French neighbors, and as a consequence when it became known that diphtheria was in their midst the infected house was shunned. On the other hand the population in the "infected area" were entirely French, and notwithstanding repeated warnings and palpable evidence would not believe that the disease was contagious.

Relationship between diphtheria and the so-called true croup.—The evidence obtained from this epidemic leaves little room to doubt from a clinical view of the facts that the fellowship between diphtheria and what was long known as membranous or true croup is an indissoluble one. If a child is ill with a disease characterized by a membrane situated in the larynx and trachea and another child comes in contact with the sick child and almost immediately contracts a disease characterized by a membrane situated on the tonsils, soft palate etc, or *vice versa*, the membrane in each case being almost identical in its macroscopical and microscopical characters, and these phenomena occur and recur in the same epidemic, the conclusion is inevitable.

Other Features of the Epidemic.—The most marked characteristic of the outbreak was the pronounced preference the local phenomena of the disease had for the larynx and trachea. Out of 47 cases there were 16 deaths from "croup." In other respects the type of the disease was not malignant, but it illustrated in a striking manner that the mildest case may assume that form of the disease in which medical skill is almost useless. The character of the membrane was thin, pearly

grey in color; there was but little hyperæmia or œdema of the throat, scarcely any glandular enlargements, and septic symptoms were but little marked. An analysis of the deaths in reference to age bears out previous statistics. Between the ages of 1 and 5 years, 22 had the disease and 17 died; between 5 and 10 years, 21 had the disease and but one died; between 10 and 15 years, three had the disease and all recovered; one adult only was attacked and recovered. Another peculiarity of the outbreak was the deplorable fact that only 7 of the 47 cases received medical assistance. Two were seen by physicians after croup was fully developed, jaborandi was given in one *per ora*, and its alkaloid hypodermically in the other, the characteristic effects of the drug were obtained, but both children died. The adult case was seen on the 10th day of the disease in a critical condition, temperature 100.5°, pulse 140, resp. 30; membrane visible in the throat. Boro-glyceride applied locally. Milk, whiskey and tr. ferri mur. were administered liberally, and the patient recovered. Another case, a child aged 11 was seen a few hours after feverish symptoms were first observed, the characteristic exudation was present in the throat. Tr. ferri mur. was given in 1 m. doses every half hour for a time, afterwards every hour; quinine was also administered, and the child was well in a few days. Several children died from croup within a stone's throw of this house during this child's illness. Had the treatment the effect of limiting the membrane to the pharynx? The other three cases which received treatment presented no unusual features.

SUPRAPUBIC URINATION.*

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Suprapubic urination, the subject which I propose summarily to deal with in the present paper, may arise from three distinct causes. 1st. Congenital deficiency of the anterior wall of the bladder, exstrophy. 2nd. From an opening caused from malignant disease, or traumatic injury. 3rd. Superinduced by the hand of the surgeon in the operation of tapping. To the last of these my thoughts will be mainly directed, not so much to

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