

DISCUSSION ON DIPHTHERIA AND MEMBRANOUS CROUP.--ITS UNITY OR DUALITY.

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The alleged or so-called differences between what is known as membranous croup and diphtheritis are—1st, pathological; 2d, clinical ones. There was great importance attached to the pathological structure of the false membranes found in the pharynx and larynx in the peculiar inflammations known as diphtheria and membranous croup.

Virchow was the originator of these so-called pathological differences, better called theoretical distinctions. He admitted a similarity in structure, but claimed that the exudation was poured into the structure into the substance of the mucous membrane in pharyngeal *diphtheria*, while in membranous croup the exudation was but a coagulation upon the surface.

A most important point was thought here to be made in practical diagnosis,—removing the membranes, etc., etc. No homogenous basement membrane in the pharynx, and is in the larynx. He surrendered this ground finally, for he found that these exudations passed into each other by insensible gradations, and then brought up another theory that necrosis of the subjacent tissue was the great pathological symptom, and distinguishing feature of diphtheritis.

This was no better than the other, for many cases he found to be croup clinically, but necrosis (*death*) of the soft tissues supervened, and *vice versa*.

No naked eye or microscopical differences in the two membranes.

Wagner says the diphtheritic deposit is a transparent, homogenous tustrous net-work filled with pus corpuscles croupous.

Deposit is a close net-work of delicate threads whose meshes contain elements resembling *puss cells*. Rindfleisch believes in a pathological identity of the two membranes. Hence, we must perforce abandon our first difference, viz.: the pathological.

Next let us consider what has been termed the clinical differences. They are as follows: 1st, the difference in location; 2d, the difference in manifestation.

In regard to the first named, that of site or location, it is claimed that diphtheria is a disease of the pharynx, tho' it may sometimes spread downward into the larynx. While croup, the dualists claim, is essentially an affection of the larynx, and never follows upward or appears in the pharynx. It would not be croup then, for that term croup or croups was just given to an acute affection of the passages in 1713, by Dr. Polk Blair, of Scotland, while the disease now known and described as diphtheria of the pharynx was not known to the profession of Great Britain till 1858 as diphtheria.

That croup does often begin in the pharynx and passes downward into the larynx, exhibiting oftentimes none of the peculiar symptoms of diphtheria, that is, no constitutional disturbances, such as is caused by sepsis, is a fact to which I can testify from many a bed-side experience. In fact, I am ready to assert, and to prove, from careful clinical investigation, that

more than 75 per cent. of those cases which the adherents of the duality theory claim to be membranous croup and distinct from diphtheria, the primary local disturbance begins in the pharynx and passes downward into the larynx, and was discovered and pronounced membranous croup.

However, it is not only a matter of logic, but a matter of fact, that differences of location can not from any process of reasoning, from any logical reasoning, be considered in a *constitutional* disease a *specific difference*—(*cancer of larynx*).

The first of the clinical differences then is disposed of; then, that of site or location.

Secondly, let us look for a moment at the manifestations of the two (*so called*) diseases.

1. They claim for croup that it is local (*purely and simply*).

2. That there is no inflamed lymphatics, and consequently no sepsis from secondary absorption into the system of the poison locally generated.

3. That croup is a sthenic(?) disease.

4. No albumen appears in urine.

5. Paralysis never supervenes.

While, per contra, it is claimed by the same class of men that just the opposite is true of diphtheria, viz.:

1. That it is a *constitutional* disease.

2. It is of a dynamic type.

3. That the cervical lymphatics ARE swollen and inflamed.

4. That albuminaria often appears (and when it does so your patient generally dies).

And 5, and last. Paralysis is a common sequel. All of which, regarding pharyngeal diphtheria, we do not attempt to deny, only merely claiming the same conditions supervene in what the dualists call membranous croup.

Let us quietly and briefly examine these claims, and see whether these assertions are facts or fictions.

1st. The constitutional or local nature.

The primary septic condition gives rise to, first, the local conditions; and secondly (according to where these local conditions appear), and subsequently, generate poison to constitutional disturbances.

Though in malignant cases the primary symptoms are constitutional, for the primary septic cause was a powerful one, and may give rise to constitutional disturbances as well when first manifesting itself in the one place as in the other, remember the free network of absorbents of the mucous membrane of the nasal passages, the soft palate, and back of the pharynx, with their wonderful connection with the very numerous cervical glands beneath the angle of the jaw; and do not wonder that poison is carried through them into the system, deteriorating the blood, and causing great hyperemia and swelling; and contrast this with the paucity of lymphatics in the larynx and trachea, which are connected with but the *one* solitary lymphatic gland, and one small one on the side of the trachea.

And do you not readily see why you do not get constitutional disturbances when the disease is located in the larynx or trachea?

There is *not* the liability, there can *not* be the danger, there is *not* the constitutional disturbances, when the disease has first seized upon the larynx or trachea.

2. We are told croup is sthenic(?), diphtheria, adynamic—opposite conditions.

Yet diphtheria is often treated with calomel and bleeding, and many advocate a stimulating treatment for croup.

Therefore, we must draw this fact—that distinctions based on a difference of type only in two diseases are without weight.

3. The inflamed and swollen glands I have already spoken of.

4. The alleged clinical difference was albumenaria. Did any of you ever test the urine in what you called membranous croup?

Then test it for albumen in the same number of cases in what you call two diseases, say 100 of each, and you will find it as often complicating the one as the other, and your patients will die in both cases, as a general thing.

5, last. Paralysis—common in diphtheria, rare in croup, I admit. Yet not a year ago I read of a case diagnosed membranous croup where the little patient, struggling in the greatest agony for a breath of God's life-giving oxygen, raised herself from the pillow, only to fall back the next moment a complete paraplegia, in which condition she remained till death ended her sufferings, some forty-eight hours subsequently.

Ordinarily, our patients are asphyxiated ere they have time for paralysis to appear, as *that* is generally a *sequel*.

There, gentlemen, are all the conditions which have ever been claimed, so far as I know, in the differential diagnosis of what you denominate membranous croup and diphtheritis.

We must look upon this question, however, from a broad, a philosophical, a progressive standpoint.

In order that we may place our accumulated knowledge where we can use it to the greatest advantage, we must classify. At first, classifications were all symptomatic. Next, after anatomy became mastered, classifications were all anatomical.

But neither of these will answer for the present day. An ætiological classification is what we seek. Trace disease to its origin, unearth its hidden causes, for the cause of disease is the very essence of its specific nature.

INFANTILE PARALYSIS.

BY DR. NORMAN TEAL, KENDALLVILLE, IND.

[Read in the Section on Diseases of Children.]

The subject of infantile paralysis is chosen in this instance for two main reasons: First, for what is not known of it; and second, for what ought to be, and possibly in time may be, learned of a malady of so frequent occurrence and so dire in consequences.

The gospel preacher does best when discoursing from a substantial text, and so it is, I fancy, in regard to other speculative as well as practical subjects. Accordingly, for the better discussion of the subject

in question, I will introduce a case in point, which will be recognized as a fair type of essential paralysis: A seventeen-month-old female child of previous good health and of good development was recently brought to me by the mother and the attending physician, presenting the following special symptoms:

Complete *paraplegia*, considerable *dyspnœa*, slight *paresis*, involving the muscles of the *neck*, *dorsum* and *arms*, with the attendant inability to hold up its head—that is, to hold the head erect without special effort, etc., and with a very slight restlessness apparent in the face and eyes. The history, as related by the mother, was that the child had passed a quiet and comfortable night in bed with its parents; that it had played in bed in the morning, as was usual with the lively little charge; that the child, after its morning romp in bed, had been allowed to climb out upon the floor, intending, or at least so interpreted by the mother, to run to the father, who had previously arisen, when suddenly the alarming fact that this usual morning feat of running about the house in robe scant and free could not be performed. The child could neither run, walk nor stand; it was thenceforth a helpless little bundle.

As before remarked, this is a typical case of infantile paralysis; and cases similar to this occur continually, and many have happened in the past. The malady has left its indelible stamp of distortion and disability upon its thousands of victims in the past, and is daily recruiting its army of cripples, in spite of boasted achievements in medical and surgical science. Though, the fact is, the profession is not boastful in regard to essential paralysis: on the contrary, there are too many of its members who shun the victims of this disease, because they feel so little can be done in the way of curing.

In regard to the treatment of the case I present, I have to say, *pot. bromid.*, *ergot ex. fl.*, and *bel. ex. fl.*, were prescribed, followed by abatement of several prominent symptoms, notably the *dyspnœa* and the *paresis* of the neck and arms, but, as may be inferred, without any apparent change in the *paraplegic* condition. In addition to the internal medicines given in the case, external manipulation, such as rubbing with the hands, slapping the surface of the thighs and nates, galvanism, and often repeated moving of the feet and lower extremities, with particular attention to flexion and extension of the principal joints, and also of the feet and toes, was not only made by myself, but strongly advised, and, I have no doubt, was practiced by the attendants of the patient. Attention to diet and general bodily exercise was also included in the management of the case. This is the case, so far as history, treatment, and the partial results already mentioned are concerned. The present status, after the lapse of about four months, will follow, with your further attention: The patient has regained the power to move the toes, can sit erect and easily hold up the head, has no *dyspnœa*, can flex the legs and thighs, but has only feeble power of extension; cannot stand, or at best can only do so with aid, and has learned to creep about, dragging the enfeebled lower part of the body along. I may be per-