

PATHOLOGY.

ON THE TRANSMISSION OF TUBERCULOSIS.

Professor Chauveau, the able physiologist, to whom we are indebted for our present knowledge of the intricate nature of some viruses, made an extremely interesting communication at the medical section of the French Association for the Advancement of Science, "On the Transmission of Tuberculosis through the Digestive Organs." He called attention to this question as one of great importance to the public health. During several years he has made numerous experiments on animals. He administered tubercular matter with their food, and he arrived at the conclusion that the bovine race only is susceptible of contracting tuberculosis.

Professor Chauveau has repeatedly administered tubercular matter to calves; the animals continue in good health for about six weeks, but soon after that lapse of time they begin to lose flesh and ail. All calves to which tubercular matter was administered with their food presented on post-mortem examination evident and numerous signs of tuberculosis, some in an acute, some in a chronic form; the disease affects generally the lungs, and pervades to a variable extent the glandular system.

In order to show these facts to the members of the Association, Professor Chauveau prepared the following experiment. He purchased four calves. Two of them were born the same day and on the same farm, the other two were of about the same age and size, and came from farms situate in the vicinity of the first. They were brought to the Lyons Veterinary School on the 17th of June; until the 25th of that month they were all fed alike on milk and barley-meal. The animals thrived well. On the 25th he selected the two strongest calves, and administered to them, mixed with water, fifteen grammes of tubercular matter taken from the lungs, bronchi, and glands of a cow that had died of tuberculosis. This was again administered to both of them, and in the same way on the 26th and on the 30th of June; on the 6th of July a fourth dose was given; this time the tubercular matter was mixed with flour to a pasty consistence, and made to be swallowed as boluses. During five weeks the calves continued in good health. At the date of the meeting (22nd August) one of the calves only was ailing; he had lost flesh and swallowed his food with some difficulty. The two calves not subjected to the ingestion of tubercular matter seemed in perfect health.

At Professor Chauveau's request a committee was appointed by the Medical Section to make a post-mortem examination of the calves. In their report the committee stated that they had found in the calves to which tubercular matter had been administered extensive infiltration of tubercles in

the lungs and in many of the glands. In one of these they found deposits of tubercles in the cervical glands and a large tubercular ulceration in the pharynx.

The two calves to which no tubercular matter had been administered were also examined. Here also tuberculosis was present, but in a much more limited and less advanced condition. This fact, which at first sight seemed to disprove the views held by the learned professor, were found on investigation to strongly corroborate them, and afforded a still greater proof of the high contagious power of tubercular matter. Professor Chauveau had been absent for some weeks, and the feeding of the calves had been entrusted to one of his subordinates; the calves had been kept apart, as directed, but fed all of them from the same bottle. It is probable that some tubercular matter from the pharyngeal ulceration of one of the calves adhered to the mouth of the bottle, and thus inoculated the healthy calves with the disease. In order to test the value of this explanation and ascertain if tuberculosis were not a common disease among calves in that neighbourhood, the lungs and glands of ten calves were carefully examined, and in none of them the faintest traces of tuberculosis could anywhere be found.

PRACTICAL MEDICINE.

ON INFLAMMATION OF THE THORACIC DUCT.

Dr. Chouppe, of Paris, has just published a thesis in which he has collected five cases of the above rare and, as yet, not well known affection. The five cases collected by Dr. Chouppe are the only ones hitherto placed on record. In three of the cases the inflammation was secondary, and, in two, primary. In order to distinguish this latter form from the former, Dr. Chouppe has conducted a series of experiments on animals. The points brought out by the two cases and by the author's experiments are very interesting. In both cases the inflamed thoracic duct had thrown a quantity of pus into the general circulation through the subclavian vein, and it might be said that the patients had had a sort of pyæmia through an internal course; yet, during life, typhoid fever, meningitis, and articular rheumatism were successively suspected, whilst purulent infection was not even thought of. Another point of interest was the obliteration of the subclavian vein in one of the cases; it could only, however, have occurred during a late period of the disease, as symptoms of pus in the blood had been previously observed. Notwithstanding the great importance of the thoracic canal, as conveying all the chyle produced by digestion, and the most part of lymph, no disturbance in the digestive organs or in the functions of nutrition was observed. Moreover, Dr. Chouppe stated the existence of pulmonary infarctus, caused, according to him,

by the pus producing embolisms. The other symptoms were redness of the surface in various parts, inflammation of the sheaths of tendons, and of several joints. In both primary cases the onset of the disease was sudden; in one case it came on with violent pain in the stomach and intense fear; in the other, with a violent and protracted fit of rigor. In the two cases these symptoms were followed by high fever, prostration, loss of strength and flesh.

Dr. Chouppe has arrived at the following conclusions on the important questions which he has investigated:—Primary inflammation of the thoracic duct does exist; it is attended by general symptoms of purulent infection and by local symptoms; it cannot be diagnosed as yet during life by the help of known symptoms, but its presence may be suspected; it is likely that it has been sometimes overlooked, and that it occurs occasionally.

THE ENDEMIC AND NON-INFECTIOUS CHARACTER OF DIPHTHERIA.

Dr. W. Carr read a paper on this subject at the recent meeting of the British Medical Association.

The object of his paper was to support the following inferences: 1. When diphtheria breaks out in a family, attacking one or more of its members, the cause will be found in some local sanitary defect. 2. The family should at once remove from the infected house—a measure at once obligatory and preventive. 3. Imported diphtheria does not, as interpreted by the cases, spread in a family. Comparing the well-known histories of the spreading, by importation, of scarlet fever, etc., with diphtheria, we are forced, resting our conclusions on the cases narrated in this paper, to accept the teaching that diphtheria is neither infectious nor contagious, but strictly a preventable endemic disease, whose extermination will be, in due time, one of the victories of sanitary science.—*Brit. Med. Journ.*, Sept 6, 1873.

THE INFLUENCE OF THE EMOTIONS.

The *Clinic* gives the substance of an interesting article by Dr. Kohts, of Strasburg, on the influence of the fright, occasioned by the bombardment of Strasburg on the development of disease. During this bombardment, the German artillery fired 193,722 shots at the city and fort; that is, 6,249 per day, 269 per hour, four or five per minute. The author details cases of nervous disease, such as tremor, paralysis agitans, paralyses, softening of the spinal cord, paraplegia, uterine diseases, abortions, diseases of the circulatory apparatus, &c., all clearly due to the effects of anxiety, fear, and other depressing mental emotions. As a prelude to his cases he cites the following remarkable instances on record. Sophocles died of joy in his eighty-fourth year upon the crown-