

with the usual phthisical symptoms, viz., emaciation, loss of heat, and afterwards general miliary tuberculosis. Amongst others who have given the weight of their authority to the belief that tuberculosis is contagious are Mr. Simon and Dr. Greenfield, such contagion being frequently spread by the milk of high-class cows, which are very subject to the disease. It is important to note that whilst the lower animals may communicate the disease to man, man may in return infect the lower animals. In proof of this, is the case recorded by Dr. Cullimore (*British Medical Journal*, May 22, 1880), where a strong healthy dog lapped up the sputum of a tuberculous man, and died in a short time of pulmonary phthisis. In connection with this must be mentioned the spread of infection within the same individual from one organ to another. Virchow maintained that tuberculosis spreads from organ to organ as if by infection. The tubercular virus enters the organism most commonly through the air passages, and thus in the first instance is capable of favoring pulmonary tuberculosis. From here it spreads on to the bronchial glands, and further enters the general system, or by swallowing of tuberculous sputa produces secondary tuberculosis in the intestines, mesenteric glands, &c. Or the virus enters primarily through the digestive organs with the food, notably the intestine, and from here the infection spreads on to the mesenteric glands, peritoneum, and, further, the general system.

Dr. Pollock, Senior Physician to the Hospital for Diseases of the Chest, Brompton, in writing upon phthisis in relation to modern pathology, says:—"Tubercle is, then, not an essential element in the disease, but where found, is a secondary superadded result arising from infection, or the resorption of inflammatory results in the individuals themselves. Tubercle is a short-lived product, arising from inflammatory residues which have undergone degeneration—caseation—and been conveyed into the system, or to distant parts of the lungs or other organs, by the blood-vessels and lymphatics, or even directly by the air-tubes. Tubercle probably lives but some weeks or months, but the changes in the lung formerly ascribed to tubercle may last for years." Charcot, in his

study of the thermometry of the disease, says: "The thermic curves are not those of inflammatory action, but of putrid infection, and in the pyrexial form of phthisis the exacerbation (of temperature) is due, not to a pneumonic process, but to resorption of softened material."

With these considerations in view, the practical part of the question, viz., treatment, may be considered, and if we regard phthisis as a disease of a septic parasitic origin, and readily infectious, as modern pathological research would lead us to believe, then the antiseptic treatment is a highly rational one. And indeed the success already met with in the treatment of certain forms of phthisis by this method, by Dr. McKenzie, Dr. Yeo, Dr. Coghill, and others, should secure for it respectful consideration and an extensive trial. In order to carry it out effectually, Dr. McKenzie has devised a very ingenious little instrument, which he calls the *naso oral respirator*, which covers both the mouth and nose, and can be worn for hours at a time without the least inconvenience. The perforated lid upon the lower part of the instrument can be removed at pleasure, and a sponge saturated with carbolic acid, creasote, or other volatile antiseptic agents, placed within. The air in the respiratory process passes through the sponge saturated with the vapor. It is provided with inspiratory and expiratory valves, and is not liable to get out of order.

The following are the brief notes of a case which I have recently treated by this method: Miss S., age 24, of good family history, consulted me about six months ago, complaining of general debility, cough which had been troubling her for some time, slight progressive emaciation, loss of appetite, shortness of breath upon exertion, &c. I did not make any physical examination of the chest at the time, but prescribed for her cod-liver oil with hypophosphites, which she continued to use for some weeks with benefit. I did not see her again until the 2nd Sept. last, when I was sent for, as she had on that morning an alarming hæmoptysis. She must have got up fully a pint of blood. I at once ordered her to bed, enjoined perfect quietude, and gave her fluid extract ergot and iced drinks. Upon visiting