

Treatment of Acute Pneumonia.*

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DURING the last five years I have been engaged in making a collective investigation on the influence of cold, applied to the chest, in the treatment of acute pneumonia, and so far have succeeded in gathering two hundred and ninety-nine cases of this kind, from the experience of my fellow practitioners, and from my own. In studying and analyzing these cases I have naturally formed convictions, and drawn conclusions, concerning the utility of the treatment which was employed, and, although these may not be entirely correct, I express the hope that they may be of sufficient practical interest to justify me in bringing them before you this evening for a free and full discussion.

In the first place, let us seriously consider the pathological condition with which we have to deal, when we are confronted by a case of acute pneumonia, for over and above the picture which this gives us of the mechanism of the affection, it will also lead us to adopt correct principles of treatment. Under the term acute pneumonia I include both croupous and catarrhal varieties, though, as is well known, these two forms differ pathologically. In the croupous variety the pulmonary capillaries are enormously distended, and engorged with blood. There is partial or complete stasis in these vessels, and the serum of the blood exudes through their walls, and accumulates in, and finally fills, the air cells of a whole lobe, for which reason, as is well known, it is also called lobar pneumonia. The next step in the morbid process, is a fatty decomposition, and expectoration, or absorption, of this accumulated material, and after this the lungs return to perfect health. In the catarrhal form of acute pneumonia the process is different. The blood-vessels are also distended and engorged with blood, but in place of a serous exudation into the air cells, these become partially or completely filled with catarrhal material, derived chiefly from their epithelium. The whole process seems to be less active than that in the croupous variety, but the morbid

products may also undergo fatty degeneration, although there is danger of cheesy metamorphosis if the affection is too prolonged. Now, whatever may be the cause of the distension and engorgment of the pulmonary capillaries in both forms, and especially in the croupous variety, it is this *blood-fulness* of the lung which must be constantly borne in mind as one of the salient points in the treatment of this disease.

This leads to a consideration of the various tendencies towards death in pneumonia, and in doing this I shall first take up the inflammatory process in the lung itself. This being the most superficial manifestation of the disease, it is very often taken for granted that its area is an indication of the seriousness or insignificance of the affection. This holds true as a rule, but must not always be depended on, for occasionally cases are met with in which very few abnormal physical signs are discoverable, so far as infiltration is concerned, and yet the symptoms are of the gravest character, and, therefore, out of all proportion to the size of the area which is implicated. On the other hand, cases are found in which several lobes are involved, while the symptoms are unusually mild, and the patients make a rapid recovery. A frank and limited localization of the inflammatory process in the lung is not one of the most unwelcome features of pneumonia, yet efforts must always be made towards allaying and circumventing it.

One of the most serious of these tendencies is respiratory failure, which seems to be dependent on an impaired and defective nerve supply of the lungs in particular, and on a profound depression of the nervous system in general. It is a symptom which is frequently associated with latent, senile, and alcoholic pneumonia. As a rule, a low temperature is one of its characteristics. The respiration is short and frequent. There is a want of respiratory movement in the chest walls, and the abdominal breathing is exaggerated. Each breath is a laboured one, and almost seems as though it were the last the patient could take. Such patients have assured me that they feel as if the only breathing surface left to them was centred in the upper and middle portion of the chest. Auscultation often reveals only a small amount of physical disintegration, and this generally at the base of the chest, although the respiratory murmur is markedly diminished in volume, if not over the whole chest, at least in spots. There is

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