

often above 25 per cent., which represents about the average death-rate from this disease in the Northern and Southern armies during the Civil War.' It is added, that 'in this country extensive statistics of pneumonia in private practice are not available; but in the recent returns from the Collective Investigation Committee of the British Medical Association, the mortality was 18 per cent.' This last ratio, it will be perceived, is considerably more than double the carefully computed mortality of pneumonia before 1858, namely, 8.33 per cent. We have thus, I think, a *demonstration* of the large increase in the proportion of deaths from that disease in recent times, over what it was thirty, forty, and fifty years ago.

How is this increase of mortality to be accounted for? Three hypotheses are conceivable.

1. The records may be supposed to have undergone modification through improved methods of diagnosis. There is no ground for this supposition. The physical signs, as well as the symptomatology, of pneumonia, were well understood forty and more years ago, by those physicians whose reports have furnished materials for the statistics which have been cited. The use of percussion, in aid of diagnosis, dates with Auenbrugger, 1761; auscultation began with Laennec, about 1818.

2. 'Change of type' of the disease may be asserted; or a general change in the constitutions of men, affecting the character of all diseases. Reasons are given in my paper for believing that neither of these hypothetical assumptions has such support in facts as at all to meet the requirements of the case. While, at all periods it may be sometimes sthenic and sometimes asthenic or typhoid, pneumonia is practically the same disease that it was forty or fifty years ago.

Lastly, therefore, we are brought to dwell upon the coincidence between this great increase in the mortality of pneumonia and a marked change in prevailing methods of treatment.

What has brought this change of treatment about? Is it a better knowledge of the pathology of pneumonia? No. Autopsic and microscopic investigations have cleared up certain minutæ, as to the distinction, for example, between croupous and catarrhal pneumonia. But we still have, as ever, the first stage, of congestion; and, the second, of red hepatization of the lung; in other words, primary *stasis*, with interrupted nutrition, at the focus

of inflammation; concentric hyperæmia there, and general vascular excitement of the system; then exudation, whose changes chiefly determine the increased vascular tension following a local obstruction to the circulation, gave the indication for measures of relief in the older practice; and that *indication* still remains, in the presence of the most advanced researches as to either the crass or the minute morbid anatomy of pneumonia.

Attention is given in my paper, at length, to the opinion now ascertained by some pathologists, that pneumonia is a systemic fever, with lung changes as merely its local manifestations; especially in connection with the theory of the microbic causation of the disorder. Jaccoud, in France, and Dr. H. B. Baker, in Michigan, are cited as having not long since\* given *demonstrative* evidence that the essential, necessary cause of pneumonia *cannot* be microbic; dry cold having the most to do with its production, in at least much the larger number of cases; while the bacilli and micrococci often found present may, no doubt, exercise a morbid action, affecting the character of the disease. If, however, it were even proven that pneumonia depends upon microbes for its causation, that would not decide the question of its treatment, while we are not in possession of direct and certain microbicidal measures of therapeutics.

By all these considerations we are led at last to the conclusion, that the change in practice that had been referred to, has no other origin than a fluctuation of opinion, not justified by facts or reasoning, concerning principles in therapeutics. This fluctuation involves:

1. A depreciation of the value of the early abstraction of a moderate amount of blood, locally or by venesection, for the relief of active inflammation, in persons of good previous health, and not advanced in age.

2. A like depreciation of the utility of early catharsis, especially as an eliminative agency, to prevent the accumulation in the system of the products of regressive metamorphosis of the tissues.

3. The same want exists of due valuation of salines, formerly called refrigerant medicines, for lowering blood-pressure and promoting the func-

\*Jaccoud's paper was communicated to the Académie des Sciences, and was reported May 7, 1887, in *La France Médicale*. Dr. Baker's investigations have been made public in several places within a year or two.