

mation, but those of later stages showed all the microscopical characters of true tubercle, but the most interesting feature was the situations where these were found; they were found either *between the aveolar spaces, beneath the pulmonary pleura or immediately surrounding the arterioles*. In no case was the deposit present primarily in the alveoli, but when present there, occurred only after breaking down of the alveolar septa. Now these three situations, viz., between the air vesicles, around the arterioles, and beneath the pulmonary pleura are known to be the tracts in which the lymphatics of the lung run.

I explain the presence of the deposit in these situations by supposing that the morbid material had been absorbed from the blood by the minute capillary lymphatics, and that after entering them had set up inflammation, and hence these changes. Apart from the theory, however, I think these experiments go to prove the possibility of simple irritation in the lymphatics giving rise to changes which may result in tubercular deposit apart from any previous pneumonia or vesicular deposit.

The insight into the causes of pulmonary phthisis has been materially aided by the better understanding of the nature of the nutritive changes which constitute it, and especially by the discovery of the dependence of tuberculosis upon those other morbid processes which usually precede it. Would we not be more correct—when speaking of the inheritability of pulmonary tuberculosis—to speak of the *disposition* to pulmonary tuberculosis being inherited. Here what is transmitted is not the disease itself, but a weakness and vulnerability of constitution which in the parents has already either been the cause of pulmonary tuberculosis or has only been developed in them by the disease. This weakness and vulnerability of constitution may arise from many other causes than phthisis. Every one knows how extremely liable, patients suffering from diabetes mellitus, are to suffer from a rapid and disintegrating tubercular phthisis.

Experience shows that delicate and ill-nourished individuals have as a rule, little power of resistance against injurious influences, and that generally they fall ill more easily, and recover from their illness slower than the strong and well-nourished. But the weak and ill-nourished differ from the strong and well-nourished, not only in the possession of this vulnerability but also because the in-

flammatory nutritive changes occurring in them, lead, as a rule, to a very abundant production of indurated and perishable cells. It is said of such individuals among other things, that they have a bad skin for healing, because comparatively trifling traumatic injuries cause in them a strong irritation of the injured parts leading to an abundant production of pus cells. This peculiarity seems to depend partly upon the fact that an increased irritability is associated with weakness, partly on the fact that inflammatory irritation of the badly nourished and imperfectly developed organs leads more frequently to the formation of frail and perishable cells than to the formation of those from which young tissue is formed.

I think these pathological data show the important part played by a weakened constitution in the transformation of simple inflammatory products into tubercles.

FALL OF FIFTY FEET—FRACTURE OF FOUR RIBS—PLEURO-PNEUMONIA—RECOVERY.

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J. G., aged 26, carpenter, a resident of Paris, always enjoyed good health, except an attack of erysipelas a few years ago, also had small-pox when quite young; temperate, robust looking, and of good family history. The accident occurred November 17th, 1880, as follows:—While at work on the roof of a factory, and while walking from one rafter to another he slipped and fell into the building below, which was four stories high. During his fall, when ten feet from the bottom, he struck a joist. When found he was lying on a heap of bricks on his back, quite unconscious, and was taken up by his fellow-workmen as dead. He soon rallied, and when seen by me shortly afterwards, he was quite conscious, and complained of extreme pain, which he described "as all over him." On examination I found a simple fracture of the 4th, 5th, 6th and 7th ribs on the right side, a little external to the angle; there was no deformity, but crepitus was well marked; pulse 80; respiration catching and diaphragmatic; countenance anxious; almost unable to answer questions, from the difficulty of breathing; extremities cold; no tenderness in the abdomen. Ordered