

The simplest definition of tubercle appears to me to be, according to the present state of knowledge, the following: *Tubercle is an exudation from the blood of a protein compound, incapable of organisation, but undergoing certain physical changes independent of vital influences.* Tubercle is, in fact, effete matter which the powers of the system are unable to use as building material to repair the normal waste; and it is deposited in this or that organ of the body according as it is invited by the greater or less debility of the part. Tubercle is not a plastic material; it is not a growth; it is not the manifestation of a depraved germinating power superadded, as it were, upon the normal energies of the system, or taking their place, such as we find to be the character of malignant disease; nor, on the other hand, is it identical with the effusion of blood-constituents which result from an exaltation of the normal energies, and continue in possession of their vitality, by which they are susceptible of organisation. This we do not see in tubercular deposits, which must be viewed as bearing to the diathesis giving rise to it very nearly the same relation as, to use the strongest comparison that suggests itself to us, calculus in the bladder bears to the calculous diathesis to which it is due.

There is, unfortunately, no such emunctory for the effete protein compounds as there is for the excess of saline constituents of the blood; or tubercle might accumulate, as the latter do, at a given point, and the product be removed by operative proceedings, or by chemical solution. The lungs and the skin have this duty to perform; but I need not stop to point out to you why we have not yet succeeded in destroying the tubercular product in the former, and removing it from them, by direct applications. I do not myself despair of a remedy being discovered which, in a gaseous form, may be conveyed to the deposit in the lungs, and, by dissolving it, enable the patient to expectorate it; but this would only affect a single organ. The cachexia leading to the local product will ever remain the real malady to deal with, so that we may anticipate its local effects.

The changes which take place in the deposit itself and which have been the source of much discussion, and of some very wild speculations, are, as I have already observed, closely allied to what we see taking place out of the human body in organic substances. They seem to follow the laws regulating crystallisation and chemical decomposition, rather than those of vital action.

The earliest form in which tubercle presents itself to the eye is that of a faintly granular blastema, in which we are only just able to trace a tendency to aggregation into circular forms.

The next form in which we find tubercle presenting is that of more definite corpuscles; they offer an oval form, with a more or less sharp outline, and a granular surface. These corpuscles are surrounded by the granular blastema before mentioned, which now becomes more definitely marked, and by and by appears to eliminate oil-globules in a greater or less quantity.

The tubercular corpuscle does not present a nucleus as its normal constituent; it is, in fact, regarded by some, among whom I may be allowed to mention Dr. H. Jones, as itself a nucleus. We occasionally find cells with nucleolin tubercular matter, but I am inclined to think that they are generally, if not always, derived from the normal tissues of the organs in which the deposit has taken place.

A term has of late been brought into vogue by the authority of great names, to which, before concluding this brief sketch, it is necessary that I should allude, as the subject to which it refers is closely associated with tubercular disease. I refer to *fibrinous deposits*. Many of the cases which are thus denominated present no differences perceptible, either to the naked eye or under the microscope, by which we can distinguish the product from tubercle; and in such it is scarcely in accordance with sound induction to assume a different disease, until we are able to demonstrate a distinct primary lesion in the blood.—*Association Medical Journal, May 27, 1853, p. 451.*