

Among all organic substances, fibrine alone appears to me to be capable of immediate organization or conversion into tissues, and then only in combination with albumen and fat. Hence, it may be placed down as a principle, that organization never commences without the presence of fat, separated into the form of globules, which contributes with fibrine to the formation of the various tissues.

Albumen, to become organized, probably, must first be converted into fibrine. This view, however, although resting upon the fact of the transformation of the latter into tissues in pseudo-membranes, yet the mode is entirely unknown in which albumen becomes solid in the process of nutrition. Under these circumstances, I shall prefer employing the expression plastic or coagulable liquid, or leaving, in speaking of the formation of tissues, thus leaving the question open as to the participation of fibrine and albumen in the process. It is, nevertheless, remarkable, that in the strongly albuminous liquid of a blister, at first no molecules or nuclei are visible, nor when this liquid is removed do they form; but later, if the stasis continues, and fibrine exudes, they begin to appear.

In disease, as in the normal processes by nutrition, the coagulable or plastic liquid convertible into tissues, is mostly derived from the blood.

This development of tissues occurs most frequently in the proteine substance which has exosmised from the blood-vessels, but it may also take place, though in a limited degree, in the entire mass of blood discharged when the latter are lacerated, or in the blood within the vessels themselves.

Chyle and lymph; the former the main source of the formation of the blood; the latter being the result of the imbibition of the effete elements of the tissues, are capable only of an inferior and rare metamorphosis into the elements of the tissues. The only instance which I, at present, can admit, is their conversion into nuclei or nucleus-like structures in the form of tubercle and pus, which have been observed within the lacteals and lymphatics. Probably, also, the nuclei of medullary carcinoma (medullary cancer globules), may be reckoned in this category.

Pathological formations are either perfect tissues homologous to those which are normal, or they are tissues arrested in some stage of their development. The former intimately associate themselves with the natural tissues and organs, determining hypertrophy, or they occur in these as isolated masses constituting tumors. These tissues undergo the same metamorphosis as in the normal development of the embryo.