

The new vessels, wherever formed, at first are longitudinally extended, and possess few anastomoses, but in time lose this character by the production of lateral branches, which at the commencement, appear as cæcal processes.

The mode of origin of lymphatic vessels I have not observed, but, according to Scharæder van der Kulk, they occur in fully-developed pseudo-membranes.

7. Hair and teeth, besides occurring in the ovary, are also produced in sebaceous tumors. I never saw the hair growing from follicles, nor the root inclosed by a sheath; but on the contrary, other observers state they have seen the roots of the hair of sebaceous tumors surrounded by a sheath.

8. Glands, like those of the skin, I have never seen myself, but Krause and Lebert state that they have observed such in sebaceous tumours of the skin.

9. Serous tissue, or, in other words, a vascular areolar tissue covered by an epithelium, occurs frequently in cysts; but, nevertheless, not all the latter are lined by an epithelium.

10. Cartilage.—In the production of this tissue an amorphous blastema is the basis in which appear nucleolated nuclei, separated by light interspaces; and later, upon the simple or compound nuclei, rises the cell-wall.

In this case endogenous cell-production is frequent. The vessels of cartilage are developed after the origin of the blood corpuscles.

The cartilage may be permanent, as in enchondroma, or it may ossify, as exemplified in the healing of fractures and in osseous tumors.

11. Osseous tissue is always preceded by cartilage in its development. Ordinarily, in its production, a network is formed frequently quite similar to that of normal bone; then the nuclei of the cartilage-cells become converted into osseous corpuscles, by the deposit of calcareous matter, and finally the cell-membrane fuses with the intervening substance, and both become pervaded by the calcareous matter. The radiating tubuli of the corpuscles appear to be the remains of the unossified intra and intercellular-substance. Frequently, in the course of the conversion of cartilage into bone the process ceases, constituting tumors, which I have described under the name of jelly-osteophyte—the osteoid of Müller. The bone canals (Haversian)—or rather the medullary canals—are developed partly from becoming calcified and partly from branched areolar channels of the cartilage, and never from cells. The formation of vessels is by no means essential to the ossification.