

25. *Conditions of Pyæmia.*

1. The irritation of the inner membrane of veins by means of foreign bodies, according to my experiments, neither induce redness in nor deposit upon it, and the same is the case with the lining membrane of the arteries*. Daily the veins are cut in bleeding, and nevertheless suppuration does not occur in them.

2. On the contrary, the more vascular external tunic of veins is frequently the seat of exudation, and less so of suppuration, as well from exterior irritants as from the influence of these in their immediate vicinity,—primitive phlebitis. The pus, which is formed under these circumstances, can penetrate only to the lining membrane of the veins, in which position it can induce secondary stagnation of the blood within the latter, as in the reverse case stagnation of the blood within a vein readily induces inflammation of its cellular tunic, because the venous nutrient vessels which open directly into the vein are impeded by the closure of the latter.

3. This phenomenon does not in itself determine pyæmia.

4. The introduction of substances into the veins which cannot pass through the capillaries, as, for instance, when mercury is injected into the jugular vein, induces the formation of minute abscesses in the lungs around each small globule of the metal, which, however, do not contain pus, as formerly believed, but inflammation-corpuscles.† In a similar mechanical manner pus-corpuscles operate in the capillaries, destroying the circulation, and causing the conversion of their blood into pus.

5. Injection of a small quantity of pus into the veins does not determine the formation of abscesses, but these are always produced when a considerable portion is introduced. Nor does the injection of liquor puris into veins produce metastatic abscesses; but the introduction, in this way, of a large quantity of pus-corpuscles always induces the formation of abscesses surrounded by ecchymoses, and accompanied by rapid destruction of the parenchyma.

6. The principal cause of pyæmia is coagulation of blood in the veins, which then undergoes conversion into pus, and is thus conveyed into the capillaries.‡

* See *Arteritis*, *Path. Anat.* pt. 14, and *Virchow's Archiv.* Similar results were obtained by Meinel, and he has arrived at the same view as to the cause of pyæmia, for an account of which, see *Virchow's Archiv.* 1848.

† *Pneumonia*, *Path. Anat.* pt. vi.

‡ To the existence of two forms of phlebitis,—in the first of which the inflammation of the venous coats is primary and the coagulation the result; in the second, the latter is the essential, and the former secondary;—attention was first directed by Kokintansky. Only in the fact that I consider the pus found in the veins in the both cases to be directly formed from the blood, do I differ from the excellent Winver anatomist.