

of their own views, and which is strewn with broken-down and abandoned notions concerning the inflammatory phenomenon.

To confine this discussion strictly within the lines laid down by the essayist, we have simply to inquire, "*What causes pus?*" and any study by which this question may be answered is inseparable from a consideration of inflammation, which, though not the initial lesion, is nevertheless an ever-present accompaniment of suppuration; and just here the essayist is quite misleading when he says, "Superficially studied, pus would seem to be the product of inflammation; but this cannot be, for inflammation does not always form pus." If what the doctor intended saying was that inflammation *was not* the primary cause of suppuration, otherwise it would under all circumstances produce pus, no fault could be found with his teaching, for it is a well-established fact that the primary or initial lesion is cell-irritation, generally, if not always, caused by micro-organisms; *but pathologically there can be no suppuration without inflammation*, and the reasons why pus does not always follow as a result of inflammation will appear as we proceed.

The nutritional theory of inflammation put forward by the essayist, and announced by Virchow in his "Cellular Pathology" in 1871, is not sufficient to account for all that is now known regarding this phenomenon.

The similarity of expression observed in the higher orders of the vertebrata, especially in man, and which has been termed physiological and pathological nutrition, is only apparent, not real. The flushed cheek, accelerated pulse and increased peripheral temperature are expressions of a vascular and nervous system in a healthy though somewhat excited condition, and can no longer be considered expressions of cell-irritation in the sense they were so regarded by Virchow and others.

In a long series of experiments that seem conclusive, it has recently been shown that while the vascular and nervous systems greatly augment the inflammatory phenomenon, *it is in no sense* dependent upon them.

In a course of lectures on the "Comparative Pathology of Inflammation," delivered at the Pasteur Institute in 1891, Professor Elias Metchnikoff undertook to show that what is known in the vertebrata as suppurative inflammation exists also in the invertebrata, even tracing it downward to the lowest forms of animal life—the amœba, protozoa and infusoria. So thorough had been his researches, and so convincing the arguments put forward in support of his views, that the leading pathologists of Europe and America at once accepted them as correct, and have since changed their teachings on inflammation to conform to the new doctrine; and there is no doubt that the researches of Metchnikoff "will cause a revolution, inasmuch as he has conclusively shown that