

definitely chronic inflammation; I refer to foreign bodies which have gained an entrance into the system. These if bland in themselves may nevertheless cause irritation. A good example of the extensive inflammation which such bodies may set up is seen in the dense fibrous interstitial tubercular masses developed in the lungs of stone-masons around fine silicious particles carried into the lymphatics from the alveoli.

From such examples it will be evident that no satisfactory distinctions between bacterial irritants on the one hand, and physical irritants on the other, can be founded on the duration of irritation. This factor plays no easily recognised part in determining the various forms of inflammation, and consequently I have forborne to place it in the list at the beginning of this chapter.

In thus passing rapidly over the influence of each of the four main causes of variation I have of necessity excluded sundry forms of inflammation due to the combined action of two or more. There are, for instance, such well-marked forms as the catarrhal and croupous, due to the interaction of all four factors: embolic inflammation and lymphangitis have also been passed over; these, however, are not so much forms of inflammation as inflammatory processes occurring in special regions as a result of special methods of conveyance of the irritants.

The factors then are so many, and their interaction so varied, that anything approaching to an orderly classification is hopeless. What I have here written must be regarded, not as an attempt to formulate such a classification, but as an attempt to indicate briefly how the nature and position of the tissues, and the nature and intensity of the irritant bring about modifications in the process of inflammation.

## CHAPTER 2.—ON SYSTEMIC CHANGES CONSEQUENT UPON INFLAMMATION

The results of an acute local inflammatory process are not confined to the immediate locality, but associated alterations in the system at large have long been recognised; yet while recognised these systemic changes have been but little studied: I cannot pass the matter over in silence, but my setting forth of it must necessarily be very brief and imperfect.

I cannot here say more upon the effect of local irritation on the nervous system than that, apart from direct reflex action leading to changes of nervous origin in the region of injury and the reflexes affecting associated regions, the higher centres, and through them the system at large, may become affected by paths that it is not always easy to trace.

The disturbances of the nervous system which accompany local injury can be but vaguely and indefinitely described. As regards the secondary effects, the recent most suggestive work of Prof. Roy and Dr. Cobbett upon *Shock* [*vide* art. on "Shock" in a later volume] indicates that there is here a rich field for yet further research. Of the changes in the general circulation, and more especially in the circulating blood, thanks to the