

let me pass on forthwith to its bearing upon cancer formation, leaving aside, from lack of time, any consideration of the development of histoid tumours, even though I do this at the risk of being accused of passing by what is difficult to explain.

While in man we observe, as I have above stated, that only certain of the simpler tissues exhibit any marked power of proliferation leading to complete reproduction, the latent capacity for growth is present all the same, and we notice the appearance of a further and allied phenomenon. We see that under suitable irritation the cells of these higher tissues have not lost entirely their capacity for growth, only that capacity results in a development along somewhat different lines. What I mean can best be studied by observing the conduct of individual units of these higher tissues, either in the attempt at restoration of a muscle or nerve after section, or again, by a study of the processes occurring in glandular structures during the course of an inflammation that is not too intense. Severe inflammation leading, as it does, to active cell destruction is outside our purpose. Now, the most prominent characteristic of a nerve or muscle fibre present in the attempt at recovery after injury is the multiplication of the nuclei of each unit, a multiplication often regarded and spoken of as a degeneration, and indeed not unfrequently such multiplication precedes the actual disintegration of the unit. This multiplication, which I have elsewhere spoken of as "reversionary degeneration," is, I hold, an indication of a reversion to a more primitive type of cell, and indeed in the case of muscle Metchnikoff and others have shown that the individual nuclei resulting from this nuclear division may surround themselves with protoplasm and may pass away as simple embryonic cells, so that the whole muscle fibre becomes completely disintegrated. The process here is one of what may be also termed vital disintegration. The same principle that is shown here is to be seen at work in glandular structures. Take, for example, a case of parenchymatous nephritis. If this be acute the cells of the tubules swell up, show vacuolation and other signs of acute degeneration of the cell substance, with failure of the nuclei to stain properly (or to put it in other words, diminution of the chromatin of their nuclei), and the cells are cast off. With a lesser degree of inflammation the process is very different; we find here that the cells proliferate, but at the same time these new cells do not show the full adult character, their nuclei it is true stain intensely, but their bodies are small and cubical, their characters become more nearly allied to those of the cells in the developing kidney.

Or take the liver. Here in chronic inflammation we find the same