

has excited the disease by irritation. The possibility of vaso-motor changes is not to be overlooked. In birds, death may be subsequent to pneumonia or to inanition from paralysis of the oesophagus, food not being swallowed. It is noticed that in these creatures there is fatty (and sometimes other) degeneration of the *heart*, liver, stomach and muscles.

(8) Section of the trigeminus nerve within the skull has led to disease of the corresponding eye. This operation renders the whole eye insensible, so that the presence of offending bodies is not recognized, and it has been both asserted and denied that protection of the eye from such irritation prevents the destructive inflammation.

With the loss of sensibility there is also vaso-motor paralysis; the intra-ocular tension is diminished, and the relations of the nutritive lymph to the ocular tissues is altered. But all disturbances of the eye, in which there are vaso-motor alterations, are not followed by degenerative changes.

(9) Degeneration of the salivary glands follows section of their nerves.

(10) After suture of long-divided nerves, indolent ulcers have been known to heal with great rapidity.

This last fact especially calls for explanation. It will be observed, when one comes to examine nearly all such instances as those referred to above, that they are complex. Undoubtedly, in such a case as the trigeminus or the vagi, many factors contribute to the destructive issue, but the fact that many symptoms and lesions are concomitants does not of itself negative the view that there may be lesions directly dependent on the absence of the functional influence of nerve fibres over the metabolism.

We prefer, however, to discuss the subject on a broader basis, and to found opinions on a wider survey of the facts of physiology.

After a little time (a few hours), when the nerves of the sub-maxillary gland have been divided, a flow of saliva begins, and is continuous till the secreting cells become altered in a way visible by the microscope.

Now, we have learned that protoplasm can discharge all its functions in the lowest forms of animals and in plants, independently of nerves altogether.