

which are acted upon by chemical bodies and in certain cases by nervous stimuli. The receptive substance affects or is capable of affecting the metabolism of the chief substance. The receptive substances are especially liable to change.

Some peripheral tissues are in a constant state of slight activity brought about by nervous stimuli; this causes the tone of striated muscle. Thus there are two factors in producing tone, viz., the intensity of the nervous stimuli, and the responsiveness of the receptive substance.

The receptive substance of cells varies considerably, due to the inherent tendency to variation in the chemical nature of the cells, and may vary in their responsiveness to nervous stimuli. No doubt, also, when a nerve is effective, the frequency with which it is put in action would tend to increase the receptive substance by use. The different degree of tone of the tissues is probably in part due to the responsiveness of the receptive substance.

A cell may make motor or receptive substances, or both, and the effect of a nervous impulse depends upon the proportion of the two kinds of receptive substances which is affected by the impulse.

An increase or decrease of function in a cell brought about by chemical or nerve stimulation depends upon the presence in the cell of different receptive substances. These receptive substances seem to be formed at the myo-neural junction, yet they are not dependent on nerve fibre, for the receptive substance does not degenerate on degeneration of the nerve fibres. It would appear that there must be some chemical change in the muscles causing the early exhaustion of the function of the receptive substance.

It is obvious that in myasthenia the intensity of the nervous impulse is not less, so that it must be that the responsiveness of the receptive substance is at fault. Receptive substances are acted upon by internal secretions.

The quick exhaustion and the quick recovery of the different muscle groups is characteristic of myasthenia. The same thing, but less marked, is seen in multiple sclerosis, polio-encephalitis inferior, polio-myelo-encephalitis, infantile and family bulbar affections (paralyses). In Landry's Γ analysis there is no temporary recovery of power in the muscles.

The well-marked remissions are also characteristic. Goldflamm and Rogowsky² assert that even during these remissions close search will reveal almost always a slight ptosis, palatal, facial or other paresis, showing that the disease is not quite exhausted.

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