

from the retina. Subjective visual sensations may also be peripheral as, for example, the phantasms of fire and sparks which occur in optic neuritis, in retinitis and choroiditis and in santonin poisoning. Visual hallucinations are either simple and elementary, such as seeing lightning, fire or colours, or compound, as the vision of shapes, animals, processions, sometimes shadowy, sometimes perfectly distinct. But such hallucinations may occur long before the mental disease is established. The insanity begins at the moment when the hallucinations are no longer recognized as such, but are regarded as objective.

In Paretic Dementia eye symptoms are important as they often occur at an early period or supplement other doubtful symptoms. They are:—1. Disturbances of vision. 2. Muscular disorders. The disturbances of vision are either peripheral or central. The peripheral disorders are not characteristic. There is usually a simple grey atrophy of the nerve, affecting one or both eyes and leading to gradual impairment of vision, concentric narrowing of the field, diminished color sense, and finally complete blindness. Among the central disorders of vision, hallucinations are very common during the course of the disease. Homonymous hemianopsia either paroxysmal or permanent, is also observed. Psychical blindness also occurs: it may be paroxysmal, lasting a few days and disappearing.

The muscular disorders are more characteristic and important. Single muscles or all the muscles of the eye may be affected. Apart from the pupil, the external rectus and the ciliary (accommodation) are affected most frequently. The characteristic change in the pupil is a reflex rigidity that is present in about one half of the cases, and is not seen in other diseases except tabes. This has been called the Argyll-Robertson pupil. At first the pupil reacts very little to the stimulus of light, and later not at all: still later, it does not react to convergence and accommodation. The pupils may be normal in size, contracted, or dilated, but myosis is common. Irregular shape of the pupil is also common. The pupil may continue to dilate under cutaneous irritation long after the ordinary stimuli have lost their power. The pupils are often unequal, especially at the beginning. According to authorities, irregular shape and reaction are more frequent than inequality and rigidity.

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