

THE RELATION OF LESIONS OF THE EYE TO CONSTITUTIONAL AND ORGANIC DISEASES.*

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Gentlemen,—The subject of my lecture is one of much importance, and of such a wide scope, that I must needs generalize and curtail in order to bring the subject matter within reasonable limits.

In the words of Hughlings-Jackson, "The best and most hopeful feature of ophthalmology is that it has relations, closer or more remote, with every branch of medicine and surgery—indeed, with almost every branch of science."

On the structure of the eye it is unnecessary for me to dilate, but I wish to draw your attention to the subject of the development of the eye as having a very marked bearing on the relation of its lesions to those of the other parts of the human frame.

As you know the primary optic vesicle is an outgrowth from the prosencephalon towards the outer epiblastic covering of the head. This ball-like growth soon folds in on itself at the apex, forming a sort of cup, the cavity of the cup being the secondary optic vesicle, the inflected part is the retina, while the posterior part is the choroidal epithelium. The stalk becomes the optic nerve.

At the under surface of the depression there is a slit—the "choroidal fissure"—which permits some of the mesoblast to give access to the interior of the eye. This slit forms the coloboma, which we occasionally see traces of in the fundus of the adult eye; it is prolonged back to the optic nerve, and contains the central artery of the retina. The margins of the coloboma afterwards unite completely, with the rare exceptions I have just mentioned, in which it persists.

The lens is formed by an ingrowth or bud of the epiblastic covering of the head into the cup or depression above mentioned. This separates eventually from its epiblastic original layer. Then

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