

ARTERIO-SCLEROSIS AS A FACTOR
IN
OCULAR CONDITION

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Vascular disease of the retina at any age is serious; but vascular disease of the geriatric group has by far the greatest potentiality for causing irreparable loss of vision. Hemorrhages in the peripheral field cause blind spots, but man can get along quite well with innumerable peripheral blind spots. However, when the hemorrhage is at the macula, then useful vision is no longer possible. This same effect is created, to less degree, by macular degeneration. As peripheral field changes in vascular disease are seen, the examiner should always realize that the macular area may be affected next. Thus the earliest possible recognition of vascular disease of the retina is necessary, in order that remedial steps may be inaugurated.

It is a recognized fact that pathological changes in the arterioles in hypertensive arterial disease, uncontrolled, advance more rapidly than in those cases where the condition is under control—that is, where the hypertension is diminished.

There are probably 25 million people in the United States more than 50 years old. It is estimated that 60 percent of them will die of cardio-vascular-renal disturbances. Of this number a large percentage will die of disease of the arteries.

Our position in respect to the early recognition of arteriosclerosis is very advantageous. With the ophthalmoscope we can view the arteries of the retina, examining the arterial twigs at will.

The classical picture of arteriosclerosis is the fundus of the eye may be said to be, in its order of development; corkscrew arterioles, right angle arterial branches veins depressed and obscured at point of crossing by arteries, ampuliform veins, arteries sclerosed and calcified, (the latter as streaks or beading) retinal hemorrhages and deposits of exudates, (many times at the macular area) papilledema. There may be Argyll-Robertson pupils. Most cases will demonstrate reduced vision with the pin-hole.

The symptoms are numerous; headache, sometimes of the bursting type, lasting for days, usually worse at night; blurring of vision both for distance and near, with periods of clearing; eyes tiring on concentration; inability to read fine print, requiring additional light for reading; neuro-muscular dysfunctions, and slower mental responses.

The corrective-rehabilitative procedures are efficacious, and prolong rebuilt vision for years. The patient should be referred for a complete physical check-up. Any systemic abnormality bearing on the disease should have attention. Relief of any ocular strain should be given. Vitamin deficiencies should be corrected as well as the diet, and neuro-muscular dysfunction corrected (including alpha flashing thru a pin-hole for 5 minute periods; this should be instituted as soon as a diagnosis is made, and continued and repeated as the case is followed, as should the prescribing of iodine by the physician).

As reported to you earlier, the finding of a faint dot of fat or a calcified dot at the branching of an artery, probably clinches the determination of arteriosclerosis much earlier than has been heretofore thought possible. However our researches must continue until we have a larger number of cases to report, before this will be accepted by the profession.

Case 1. Woman, age 54. Complaint is that of recurrent blurring for reading, which two Rx's have not corrected, the last Rx done under Cycloplegic. When the blurring was no present, the Rx seemed adequate.

Examination showed the Rx was adequate, but vision corrected was 20/20 – both eyes. The pin-hole gave 20/30 –both eyes; Jaeger # I was read; color fields were negative; neuro-muscular findings were 10 P.D. exo. For close with positive convergence 18 P.D., recovery at 6 P.D. One arterial branch demonstrated the fatty dot. The patient was referred for physical examination, which was negative; the physician was requested to prescribe iodine orally; syntonic treatments were instituted. In six weeks, vision was 20/20 – each eye, pin-hole 20/20 – each eye. Treatments were discontinued. The patient is still under observation. The case probably will have to be classed as ocular arteriosclerosis until something else develops at a later date.

Case 2, man, age 60. His glasses have not been changed for 5 years, “needs something stronger.” The need for a new Rx was demonstrated, vision corrected being 20/30 OU, and with the pin-hole 20/30 OU; the neuro-muscular findings were erratic; the fundus showed torturous arterioles and a faint fatty dot at the branching of a right angle artery. The patient was referred to his physician, but he gave no cooperation. The patient has not returned.

Case 3. Woman, age 56. old Rx 2 years old. Before that, had had spells of nausea and dull frontal ache which the Rx corrected; last 2 months had a return of symptoms. Examination demonstrated the need for a new Rx. The conjunctive showed a low grade jaundice. The fundus showed ampuliform and corkscrew veins. Laboratory test showed icterus index 7.2. (Incidentally that is the lowest finding at which I have been able to determine a jaundices condition. You will recall the normal icterus index is 4-6) The vascular change in this case was secondary to a chronic nephritis.

None of these patients, and many more of similar type that could be reported, knew of the vascular disease present before the visual examination. This is the type of practice that makes Visual Geriatrics of real value.

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