

Erythropsia may then occur mechanically from hæmorrhage into the vitreous, or—but less often—from hæmorrhage into the yellow spot. The red vision may change into green as the extravasated blood undergoes its usual color changes.

Colored vision may be central, as in epilepsy. Gowers says that the visual aura is twice as frequent as all the other special sense auræ together. Red and blue are the colors most often seen, and both are never absent. When the aura is followed by a true epileptic attack the diagnosis would not present any difficulty.

Although every physician knows that attacks of petit mal may consist only of symptoms which constitute the aura of major attacks, yet one could scarcely be blamed for failing to recognize that an attack of red or blue vision with obscuration of sight was epileptic in its nature. Its temporary duration and careful investigation into the history, family and personal, would be the chief guides.

The colored vision which precedes a fainting attack presents no difficulty of diagnosis.

I owe to my friend Dr. J. D. Courtenay, of Ottawa, the account of another case of central colored vision of somewhat different nature. An old man of sixty who had just escaped delirium tremens, complained for nearly two weeks that all objects appeared to him to be of a bright pink color. Pupils were normal, and there were no fundus changes of any kind. As the exhaustion due to his debauch wore off the colored vision gradually faded away.

The majority of cases of colored vision are peripheral in origin. Patients who have had the lens removed because of cataract, or who have had their pupil enlarged by an iridectomy, often complain that objects appear to them to be red.

The lens normally absorbs chiefly the ultra violet rays, so that the light impinging upon the retina is poor in such rays. If, however, the lens has been extracted as for cataract, the ultra violet rays reach the retina, and produce subjective color sensations and a sense of dazzling. The red vision may occur but once and last only a few minutes, or recur at intervals.

The loss of the lens or of a portion of the iris is not the sole factor in the production of peripheral colored vision, for it may occur when both lens and iris are intact, as in the following cases:

R. S., Jewess, 10 years. The glare of the snow makes objects appear red, the sun has the same effect. The blackboard at school sometimes looks to be of a kind of pink, and sometimes becomes green after having been pink. If she "looks on anything too much" she sees it green and then yellow. When asked what object had appeared thus, she named her slate. Sometimes the objects looked blue, but not often. Fundus normal. Vision R. $\frac{2}{1}$. L. $\frac{3}{4}$ partly. She was put on atropine drops for a week prior to refraction. At the end of that time she said that objects did not present the colored appearance so much as before. She was told to continue the drops as she was not thoroughly under the mydriatic. She disappeared and has not since returned to the clinic.

Pupils 5mm. in diameter; fundus normal; anæmic and poorly fed.