

Laboratory data

Admission urinalysis was normal, hematocrit was 40 percent and the hemoglobin level was 12 Gm. per 100 ml.; total white count was 12,100 c.mm. with 82 percent neutrophils, 16 percent lymphocytes, and 12 percent eosinophils. None of these values changed notably throughout hospitalization. A lumbar puncture showed a pressure of 180 mm. at rest. No cells were present in the spinal fluid; protein was 11 mg. per 100 ml.; sugar, 62 mg. per 100 ml.; there was no increase in globulin. Serum total protein was 7.3 Gm. per 100 ml. with 5.0 Gm. per cent albumin and 0.80 Gm. gamma globulin. Determinations of serum sodium, potassium, chloride, CO_2 , calcium, and phosphorus were normal on two separate occasions. Throat and sputum cultures repeatedly grew *Pseudomonas aeruginosa*.

With a working diagnosis of optic neuritis from chloramphenicol, therapy consisted primarily in stopping the drug and administering 1,000 μg of B_{12} intramuscularly and 150 mg. of both thiamine and ascorbic acid orally daily, coupled with 6 standard multivitamin capsules a day. The pulmonary problem was handled with a continuation of the intermittent positive pressure inhalation and postural drainage program. In addition, streptomycin and colistin were required toward the end of the hospital course to combat recrudescence of pneumonitis.

Visual acuity was noted to improve slowly. By the seventeenth hospital day, vision was 20/400 in both eyes. On the twenty-seventh hospital day it was 20/100 bilaterally, and remained thus until discharge. Very little improvement in visual fields was noted during hospitalization. The fundus showed slow resolution of the swelling of the nerve head with a decrease in the extent of the hemorrhages and exudates and an improvement in the retinal edema. On the thirty-ninth hospital day, the patient was discharged with treatment of three multivitamin capsules and 50 μg of B_{12} orally daily. She was followed through July, 1964; visual acuity improved to 20/50 in the right eye and 20/60 in the left eye. The fundus showed resolution of all acute changes and minimal postneuritic optic atrophy. Visual fields (Fig. 2) demonstrated small bilateral central scotomas and no change in the peripheral constriction.

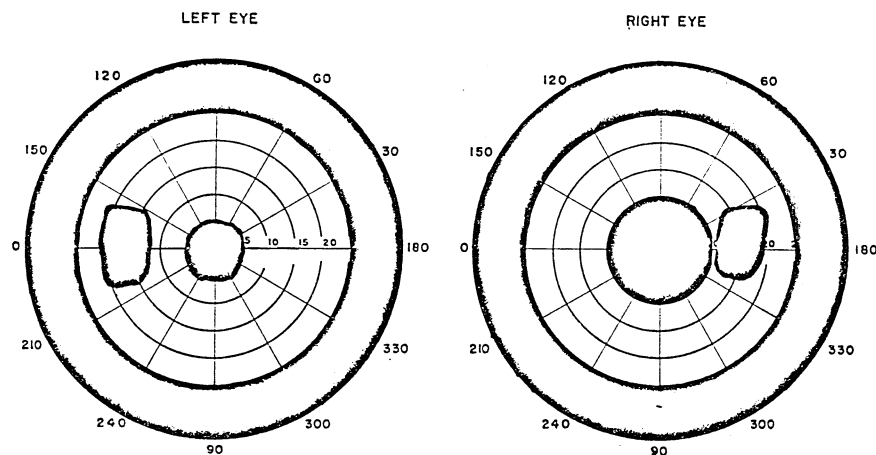


Fig. 2. Visual fields June 25, 1964. Vision 20/50 left eye; 20/60 right eye.

DISCUSSION

There are 15 fairly detailed case reports and two abstracts⁴⁻¹⁴ of visual changes related to prolonged use of chloramphenicol in the English literature. Initial visual symptoms have been, primarily, haziness and blurring of vision and halos about objects. After a variable length of time, loss of visual acuity occurs.

Acute fundus changes have been described as papilledema, venous engorgement with occasional flame hemorrhages, and exudates. Visual fields show moderate