

[From Clin-Alert, Jan. 20, 1966]

CHLORAMPHENICOL

OPTIC TOXICITY

A. *Report From Texas*: Attention has been previously directed to apparent deleterious effects of chloramphenicol (Chloromycetin) on the eye (Clin-Alert No. 63, 1962; Clin-Alert No. 188, 1965). Nine cases of blindness due to optic atrophy presumably induced by the antibiotic are on record. The present authors report a case of probable chloramphenicol-induced optic neuritis in a 9-year-old child with cystic fibrosis of the pancreas. Treatment with a total of 135 Gm. chloramphenicol over an 18-week period resulted in loss of visual acuity secondary to bilateral optic neuritis. Vision gradually returned to near normal upon withdrawal of the antibiotic and the administration of high doses of vitamin B complex.—Cocke et al. (San Antonio, Texas), J. Pediat. 68:27 (Jan.), 1966.

B. *Report From Pennsylvania*: Visual disturbances were observed in 9 of 33 children with cystic fibrosis who received long-term (81 to 252 days) treatment with chloramphenicol. Daily doses ranged from 30 to 60 mg./Kg. The major clinical feature at onset of symptoms was marked bilateral reduction of visual acuity. Two patients had severe visual impairment and permanent residual effects with partial optic atrophy. Six children had varying degrees of blurring of optic discs, retinal hemorrhages or venous engorgement. Two other children had minimal fundoscopic changes. Visual field examination revealed bilateral central scotomas in all patients tested. Vitamin B complex therapy seemed to be of some benefit in overcoming the visual disturbances. The authors believe that the chloramphenicol-induced optic reaction probably represents a neurotoxic effect of the antibiotic rather than a complication of cystic fibrosis. "Frequent test of visual acuity in children receiving chloramphenicol must be carried out by the parents and/or physician in order to detect early signs of visual impairment."—Huang et al. (Philadelphia, Pa.), J. Pediat. 68:32 (Jan.), 1966.

[From the Journal of Pediatrics, January 1966, pp. 27-31]

OPTIC NEURITIS WITH PROLONGED USE OF CHLORAMPHENICOL

CASE REPORT AND RELATIONSHIP TO FUNDUS CHANGES IN CYSTIC FIBROSIS

Treatment over 4½ month period with 135 Gm. of chloramphenicol resulted in loss of visual acuity to 5/400 secondary to optic neuritis in a 9-year-old girl with cystic fibrosis of the pancreas. Partial return of vision occurred after cessation of therapy and administration of large doses of B-complex vitamins. The suggestion is made that visual and fundal changes in cystic fibrosis may be directly and all but entirely related to prolonged use of chloramphenicol in the control of pulmonary complications in cystic fibrosis.

(By Joseph G. Cocke, Jr., Captain, MC, USA,* Richard E. Brown, Captain, USAF (MC), and Leo J. Geppert, Colonel, MC, USA, San Antonio, Texas)

(From the Pediatric Service, Department of Medicine, and the Ophthalmology Service, Department of Surgery, Brooke General Hospital, Brooke Army Medical Center, Fort Sam Houston, Texas)

The hematopoietic toxicity of chloramphenicol is well known. Certain less frequent manifestations of toxicity have also been noted, such as anaphylaxis, psychiatric disturbances,^{1, 2} and skin and mucous membrane involvement.³ Most particularly, there has been increasing recognition to the apparent deleterious effects of chloramphenicol on the optic nerve and fundus in the form of an optic neuritis.⁴⁻¹⁴

Concurrently, visual and fundal changes in cystic fibrosis¹⁵ of the pancreas, not unlike optic neuritis, have been described. Originally these changes were

*Address, Pediatric Service, U.S. Army Hospital, Fort Ord, Calif.

NOTE.—Numbered footnotes at end of article, p. 2681.