

## REVIEW OF REVIEWS

### CARBON TETRACHLORIDE INTOXICATION

The following abstract, from an article by Lamson, Menob and Robbins, which appeared in "The Journal of the American Medical Association", was taken from "Tropical Diseases Bulletin":

"Doses of 2.5 to 3 cc. of carbon tetrachloride removes from 95-100 per cent of *Necator americanus* and is only slightly less effective against *Ankylostoma duodenale*. Hundreds of thousands of cases have been treated since its introduction in 1921 by Dr. M. C. Hall. The number of fatalities from its use in hook-worm disease has been extremely small. These have been thought to be due to impurities, but cases of intoxication from carbon tetrachloride is due to one of four complications: (a) irritation or mechanical obstruction by ascarids which are stimulated to marked activity by this drug; (b) a chronic alcoholism—it is recommended that these patients should be refused treatment; (c) the presence of undigested food in the intestine, especially a fatty food.—Carbon tetrachloride should always be given on an empty stomach, and should not be followed by fatty foods for a considerable period; (d) calcium deficiency explains most of the accidents that have occurred in children and where the doses given were so small as to seem at first insufficient to cause death. There is a considerable latent period, varying from 24-36 hours, before the onset of symptoms of nausea and sometimes uncontrollable vomiting. When both the calcium ion and fibrinogen content of the blood are low intestinal hemorrhages may be uncontrollable. Inadequate calcium reserve is present in most normal individuals and children, but should be built up as a routine procedure in the poorly nourished by adding to the daily diet about one quart of milk or by prescribing calcium lactate, carbonate or chloride, although these are apt to cause gastric disturbance. About 3 gm. daily should be administered in divided doses for about one week before treatment. Ammonium chloride or hydrochloric acid by the mouth is also effective in making stored calcium available. These drugs may be given for the relief of symptoms, but should be stopped when signs of air hunger indicate that an undesirable degree of acidosis is being produced. Parathyroid extract has been used very successfully in raising the blood calcium in carbon tetrachloride intoxication. Subcutaneous injections are given at intervals of several hours.

"It should be marked that the experimental data upon which the authors have based their conclusions have been derived from studies on dogs."

### VISION OF SCHOOL CHILDREN

"Public Health Reports" for July 6, 1928, brings a very interesting report, by Kempf, Jarman and Collins, concerning a study of the vision of 1,860 Washington school children, made with the aid of a cyclopegic. This group of 1,860 children examined with the cyclopegic was checked against nearly 1,000 Washington children



in whom no cyclopegic was used, and 9,245 children from schools in South Carolina, Maryland, Delaware and New York.

From the careful ophthalmological study of these children, especially those in whom a cyclopegic was used, Kempf, Jarman and Collins derive the following interesting conclusions:

"The simple Snellen test reveals but a small percentage of the actual number of refractive errors in children. While the usual examinations of the eye, as conducted in the schools, are of much benefit, only the children who have marked visual defects are discovered; a great number are found to have normal vision and are so informed, when in reality they are suffering with latent defects. Strains of varying amounts are present which may become worse as the child advances in its school course. The individual goes out into the commercial world much handicapped, due to the effects of visual defects.

"The myopic eye is nearly always discovered with the use of the simple Snellen test. When a child reads 20/30 instead of 20/20, before and after the cyclopegic, the defects most found is myopia or one of the types as astigmatism.

"In certain parts of Europe a high percentage of the older school children are myopic. This may be associated with racial characteristics. If the face is broad and greater separation of the eyes exists, more convergence is necessary for near work. The percentage of myopia in this country is low. Only 2 per cent was found in Washington school children of 6 and 7 years of age, but this increased to 9 per cent at the age of 12—an astounding increase.

"The fact that myopia tends to increase between the seventh and twelfth years is very important as it may develop rapidly. For this reason all school children should have the simple Snellen test twice a year. Myopic children in most cases will not complain of symptoms. They may not progress with their school work as well as they did earlier in their school career, because much depends upon their ability to see the blackboard. They see clearly any objects that are close at hand and read books very easily and often with much comfort. They, however, can see well only when reading matter is held close to their eyes. These children enjoy reading as a form of amusement and do not play games requiring distant vision as the normal healthy boy or girl does. The reason is clearly evident; they can not see. A near-sighted boy can not play baseball; he does not see the ball until it gets quite near him, and when perhaps he is unable to catch it or bat it away, and consequently he is struck. After a few attempts, without knowing why, he gives up baseball and similar sports and spends his afternoons with his head buried in a book. If myopes are questioned, it will be found that in nearly all cases they refrain from outdoor games and sports, and they derive much more pleasure from reading.

"The hyperopic eye is rarely found with the simple Snellen test, and then only the very severe types are revealed. This shows the importance of a proper eye examination; and for such, a cyclopegic and who can read only 20/70 or 20/100 after its use, what information should be given to the parents? Does this child actually need glasses? Some absolutely do, while others may be able to go on for a long while without any increase of the defect. In fact, improvement may take place. However, it would be much wiser to place the child under the watchful eyes of a competent eye physician who can keep a record of successive eye examinations and properly advise such a case.



"The hyperopic eye tends to improve with advancing school age. This is very encouraging; but such improvement should not be expected in all cases. Children with errors should be rechecked from time to time.

"The astigmatic eye may be found with the simple Snellen test. Of course, this test does not reveal the type of visual defect. It only shows that certain eyes can read only certain letters at a specified distance. Small errors of astigmatism are very difficult at times to discover, and a cycloplegic is necessary. In such cases very little strain is present, but it may be of a nature to make one tire easily, or cause severe and constant headaches. An eye which has been given the wrong glass will accept it for a while, but soon will tire again and headache will recur. When a cycloplegic is used, the astigmatism is more readily found, and its proper correction will give absolute relief.

"Any child with symptoms of eyestrain should be sent to an eye physician for careful examination even if the naked eye reads 20/20 on the Snellen chart. This is just as important as having the teeth examined for presence of cavities, or the nose or throat examined to determine the presence of enlarged tonsils or adenoids. If informed, after careful examination with a cycloplegic, that the vision is normal and that no disease exists, the general feeling of satisfaction experienced is well worth the effort. If some defect is found, it does not necessarily mean glasses; but certainly such a child should be observed from time to time, so that an accurate check can be kept on the progress of such a defect. Children may not complain of symptoms until the defect is far advanced, and then much valuable time has been lost. If glasses are necessary for a child and are worn as directed, in many cases they can later be discarded. Even then an occasional visit should be made to an eye physician.

"Of the 66 per cent of eyes which read 20/20 or better and appeared normal, 32 per cent read 20/50 or worse when a cycloplegic was used, thus indicating that many eyes work under a handicap. Nearly one-fifth of all the children tested 20/100 are worse after the administration of the cycloplegic. If these children see clearly, excessive strain is required for them to do so. This in time will not only affect the child's vision but the nervous system will be involved. From a practical viewpoint of this survey, it is of importance to note that the ophthalmologist recommended that glasses were needed in 34 per cent of all cases examined and that glasses were recommended for reading and study in 10 per cent more.

"The results of this study emphasize the necessity for regular annual examinations of eyes which are known to be defective. Also, it is important to look for defects in the supposedly normal eye, for this study has shown that many eyes thought to be normal are far from being such.

"It is believed that if more thought had been given to vision and its correction at the proper time instead of awaiting symptoms many who are today wearing glasses would not find it necessary to do so."