MEDICINE

Save Eyes of Babies

➤ THE EYESIGHT of many babies, especially premature ones, can be saved by cutting down the amount of oxygen given them during the first two weeks of life. This can be done, moreover, without running any extra risk of the babies dying from oxygen lack.

A controlled, year-long study showing both these facts is reported by Drs. Jonathan T. Lanman, Loren P. Guy and Joseph Dancis of Bellevue Hospital and New York University College of Medicine, New York, in the *Journal of the American Medical Association* (May 15).

Their study is apparently the first controlled one showing excess oxygen to be the cause of the serious and usually blinding eye disease, retrolental fibroplasia. This ailment, called RLF for short, was first recognized as a disease of premature infants in 1942.

"It is now first among the causes of blindness in children in the United States and is the foremost problem other than death itself in the care of premature infants," the New York doctors declare.

Starting in 1949, several physicians have reported a link between RLF and intensive oxygen treatment. There has also been a theory that lack of female hormone might make premature babies more susceptible to RLF. Because they are born early, these babies would not get as much of the hormone from their mothers as full term babies.

The New York doctors made a controlled test of both theories. All babies weighing between 2.2 and 4.1 pounds at birth and less than 12 hours old when admitted to the Bellevue Hospital premature nursery were assigned by random numbers to: 1. high oxygen treatment; 2. high oxygen plus estrogen (female hormone); 3. low oxygen; and 4. low oxygen plus estrogen.

The estrogen had no effect on either survival or development of RLF.

The oxygen did. Of 36 babies getting the modern conventional high oxygen treatment, eight developed irreversible RLF in both eyes. Six of them are blind. Two may have useful vision in one eye.

No case of RLF developed in 28 babies with low oxygen concentration treatment.

The theory, held by doctors for a number of years, that extra oxygen helps many premature babies survive, is also challenged by the Bellevue study. The over-all mortality in the group getting high oxygen treatment was 20%, compared with 30% in the group on low oxygen. This difference, however, disappears when five infant deaths, due to known causes, are excluded.

Science News Letter, May 29, 1954