Some Observations on the Treatment of Premature Retinopathy with Variable Oxygen Tension

L.E.M. Valk

Helmond

Author's address: L. E. M. Valk, Pres. Rooseveltlaan 20, Helmond (The Netherlands)

Summary
With reference to some successfully treated cases, a description is given of changes in the appearance of the retina and vessels on varying the oxygen tension in the incubator. On the grounds of these observations the oxygen tension is regulated by repeatedly taking samples of gas from the incubator. For each child a slightly different optimal curve for oxygen tension is found.

In connection with publications about the treatment of various vascular conditions, including asphyxia of the new-born, with high pressure oxygen administration, it is useful to remember that the behaviour of the retinal vessels can be observed directly (projection).

Discussion
Manschot asks if he has understood correctly that the fundi of premature babies are examined through the wall of a closed incubator.

Further
he advocates the use of the simple oxygen tent in which on administration of 0.5 litres per minute the oxygen tension can be maintained at 38% or 35% depending on whether the opening is closed with a double or single thickness of bandage (A.M.A. Arch of 0.54.596 [1955]).