



Letter to the Editors

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LETTER TO THE EDITORS

CONCERNING THE ARTICLE "Ultrastructural evaluation of the retina in retinopathy of prematurity and correlations with vitamin E therapy" by William A. Monaco, Current Eye Research, Volume 2, 123-139, 1982/83.

Dear Sirs:

The article by William A. Monaco entitled "Ultrastructural evaluation of the retina in retinopathy of prematurity and correlations with vitamin E therapy" in Current Eye Research 2 (2):123-139, 1982/83 contains conclusions based upon what we believe to be erroneous interpretations. Dr. Monaco's studies were carried out in our laboratories. Our reexamination of the histological material used by Dr. Monaco did not confirm his reported findings and published conclusions. In view of the following points, we feel that it would be appropriate for Dr. Monaco to retract his published article.

A) We believe that the evidence for Dr. Monaco's assertion that vitamin E supplementation will suppress lipid accumulation in spindle cells was based upon examination of the wrong histological sections. The infant of the diabetic mother was reportedly excluded from the histological study (page 124). However, we have found that only the spindle cells from that infant contained lipid inclusions. Our reexamination of infant 5 documented that no spindle cells were laden with lipid, and thus Figures 6 and 10 are incorrect.

B) In our opinion, the evidence suggesting that vitamin E supplementation minimizes capillary free distance was based on measurements derived from non-comparable areas of temporal retina (Figure 12). Dr. Monaco did not consider the critical importance of the distance from the vascular-avascular interface.

C) Dr. Monaco reported (page 135) that the spindle cells from the experimental infants

"exhibited no junctional complexes". This contrasts with our findings that spindle cells in the tissues from infants 3 and 4 exhibited a three-fold increase in gap junction surface area above embryonic levels (1-3).

D) Dr. Monaco assigned the "true dichotomy between the spindle cell morphology of the control and experimental infants" to the sparse spindle cells found in treatment infants 3 and 4 as compared with the stacked spindle cells of control infant 5. However, he did not recognize the distinction between early sub-clinical events (gap junction increases) and late post-neovascularization events (spindle cell division and stacking). Our reanalyzed data from infants 3 and 4 showed that vitamin E may not, in fact, suppress the development of severe ROP in the youngest infants. We found that despite continuous vitamin E supplementation, gap junction formation occurred, and this primed such "activated" spindle cells to potentially trigger severe ROP some 8-12 weeks later (4-6). Our finding was that the true control/treatment comparison and dichotomy involved only infants 5 and 6.

E) The micrographs in Figures 3 and 4 were not taken from matched areas of retinal development and/or distance from the optic nerve. Consequently, it is our opinion that the author's conclusion regarding intact, remnant, and absent photoreceptor outer segments is unrelated to vitamin E supplementation and only a function of the degree of retinal maturation.

In summary, our reexamination of the tissue used by Dr. Monaco has caused us to question the validity of a number of the findings reported in the paper in question. As a result, we suggest that retraction of the article would be appropriate.

REFERENCES

1. Kretzer, F.L., Hittner, H.M., Johnson, A.T., Mehta, R.S. and Godio, L.B. (1982) Vitamin E and retrolental fibroplasia:

- ultrastructural support of clinical efficacy. Ann. N.Y. Acad. Sci., 393,145-166.
2. Kretzer, F.L., Hunter, D.G., Mehta, R.S., Brown, E.S., Blifeld, C., Johnson, A.T. and Hittner, H.M. (1982) Spindle cells as vasoformative elements in the developing human retina: vitamin E modulation. In "Developing and Regenerating Vertebrate Nervous Systems", (Eds. Coates, P.W., Kenny, A.D. and Markwald, R.R.). Pp. 199-210. Alan R. Liss, New York.
 3. Hittner, H.M. and Kretzer, F.L. (1983) Vitamin E and retrolental fibroplasia: ultrastructural mechanism of clinical efficacy. In "CIBA Foundation Symposium 101-Biology of Vitamin E", (Eds. Porter, R. and Whelan, J.). Pp. 165-185. Pitman Books Ltd, London.
 4. Hittner, H.M., Godio, L.B., Speer, M.E., Rudolph, A.J., Taylor, M.M., Blifeld, C. and Kretzer, F.L. (1983) Retrolental fibroplasia: further clinical evidence and ultrastructural support for efficacy of vitamin E in the preterm infant. Pediatrics, 71,423-432.
 5. Hittner, H.M., Speer, M.E., Rudolph, A.J., Blifeld, C., Chadda, P., Holbein, M.E.B., Godio, L.B. and Kretzer, F.L. (1984) Retrolental fibroplasia and vitamin E in the preterm infant: comparison of oral versus intramuscular:oral administration. Pediatrics, 73,238-249.
 6. Kretzer, F.L., Mehta, R.S., Johnson, A.T., Hunter, D.G., Brown, E.S. and Hittner, H.M. (1984) Spindle cells within the premature human retina: a new etiology of retrolental fibroplasia. Nature (in press).

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LETTER TO THE EDITORS

Ultrastructural evaluation of the retina in retinopathy of prematurity and correlations with vitamin E therapy: A retraction

Dear Sirs:

In light of the findings enumerated by Drs. Kretzer, Hittner, and Godio, I request the Editors of Current Eye Research to publish a formal retraction of my paper entitled "Ultrastructural evaluation of the retina in retinopathy of prematurity and correlations with vitamin E therapy" which appeared in Current Eye Research 2(2):123-139, 1982/83.

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