



Figure 1: A Photograph showing the experimental set up. The Mobile phone (red arrow) is hung with a distance of 5cms separating it from the fertilized chicken eggs. A RF meter is kept inside the incubator to check the intensity of radiation (yellow arrow).

5 Day Old Control Embryo Retina

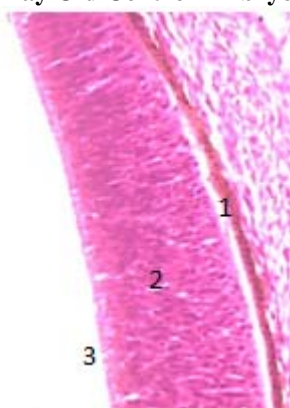


Figure 2: Photomicrograph of 5 day old control Embryo retina showing 3 layers –

- 1) Pigmented layer-mild pigmentation
- 2) Germinative layer
- 3) Inner marginal layer (H&E X 400)

5 Day Old Experimental Embryo Retina

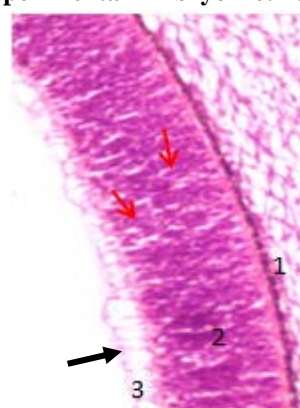


Figure 3: Photomicrograph of 5 day old experimental Embryo retina showing 3 layers –

- 1) Pigmented layer-mild pigmentation
- 2) Germinative layer showing spaces between the cells (red arrow)
- 3) Disintegrated inner marginal layer (black arrow) (H&E X 400)

8 Day Old Control Embryo Retina

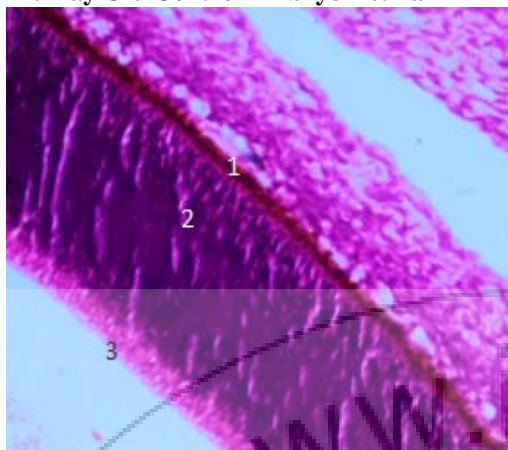


Figure 4: Photomicrograph of 8 day old control Embryo retina showing 3 layers –

- 1) Pigmented layer - moderate pigmentation
- 2) Germinative layer
- 3) Inner marginal layer (H&E X 400)

8 Day Old Experimental Embryo Retina

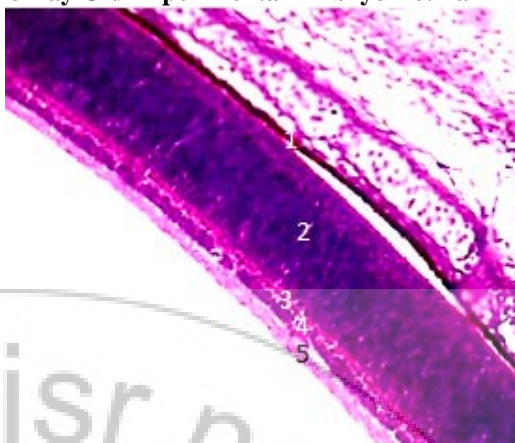


Figure 5: Photomicrograph of 8 day old experiment Embryo retina showing 5 layers –

- 1) Pigmented layer – intense pigmentation
- 2) Outer neuroblastic layer
- 3) Transient layer of Chievitz
- 4) Outer neuroblastic layer
- 5) Inner marginal layer (H&E x 400)

12 Day Old Control Embryo Retina

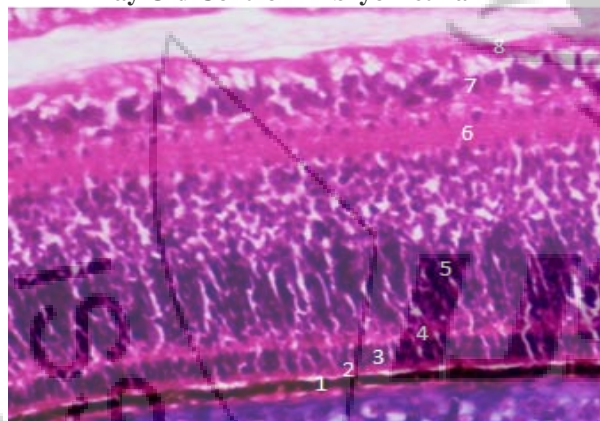


Figure 6: Photomicrograph of 12 day old control embryo retina showing 8 layers –

- 1) Pigment Layer
- 2) Rods & Cones
- 3) External Nuclear Layer
- 4) Ext. Plexiform Layer
- 5) Internal Nuclear Layer
- 6) Well Developed Internal Plexiform Layer
- 7) Ganglion Cell Layer
- 8) Optic Nerve Fibre Layer (H&E X 400)

12 Day Old Experimental Embryo Retina

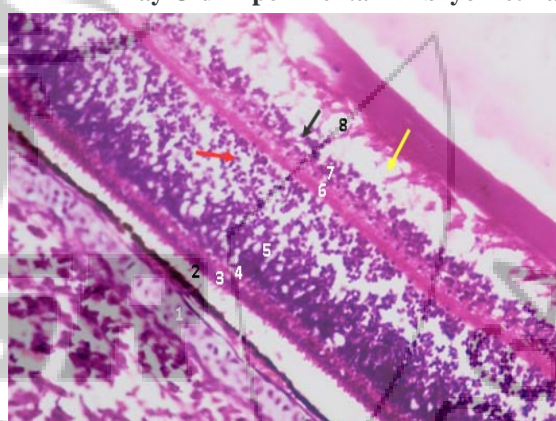


Figure 7: Photomicrograph of 12 day old experiment embryo retina showing 8 layers –

- 1) Pigment layer
- 2) Rods & cones
- 3) External nuclear layer
- 4) External plexiform layer
- 5) Internal nuclear layer showing spaces (red arrow)
- 6) Internal plexiform layer
- 7) Ganglion cell layer showing spaces between cells (black arrow)
- 8) Disintegrated Optic nerve fibre layer (yellow arrow) (H&E x 400)

Declaration

The Undersigned authors hereby declare that the manuscript “Histological Study of Chick Embryo Retina Exposed to Radiofrequency Radiation Emitted From 2G Cell Phone” has been read and approved and the work has been carried out in the department of Anatomy, MGMC & RI under our supervision. The authors warrant that the article is original and is not under consideration by any other journal and has been previously published and taken responsibility for the context. Furthermore, they warrant that all investigations reported in their publication were conducted in conformity with the recommendation from the declaration of Helsinki and the international guiding principles for biomedical research involving animals.

Author Profile



Mary Hydrina D'Silva has done her MSc Anatomy from Mahatma Gandhi University, Kottayam, Kerala. Currently she is doing her research in cell phone radiation and its effects on developing tissues of chick embryo. At present, she is working as Assistant Professor in Anatomy at MGMC & RI, Pondicherry.



Rijied Thompson Swer has done his MD Anatomy from JIPMER, Pondicherry. At present, he is working as Associate Professor in Anatomy at MGMC & RI, Pondicherry.



J. Anbalagan has done his MSc Anatomy from JIPMER, Pondicherry and PhD in Anatomy from Mahatma Gandhi Institute of Medical Sciences, Sevagram. He has co-authored a text book titled “Histology – Text and Atlas” and has published several research papers in various international and national journals. At present, he is working as Professor of Anatomy at MGMC & RI, Pondicherry.