

INTRA OCULAR MELANOMATA

Vol. II.

(Original Work)

by

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To face Plate 1 (b)

Fig. 1. Micrograph. See also Plate 1 (a).  
Fig. 2. Micrograph of developing eye of crayfish.  
Fig. 3. Micrograph in contact with nerve. See also Plate 1 (a).  
Fig. 4. Micrograph of nerve.  
Fig. 5. Micrograph of nerve.



Fig.1. Human Embryo. age late 6th week of pregnancy.

Fig.2. Micro-photo of developing eye of embryo showing ectoderm in contact with mesoderm, and migrating polymorphic melanoblasts in mesoderm.

Fig.3. Drawing of same.

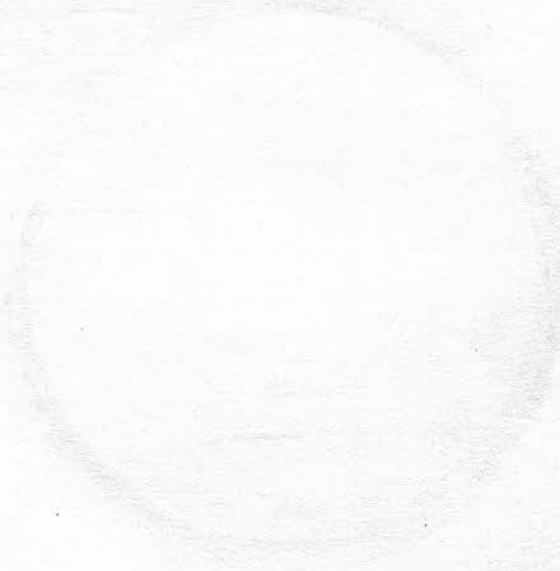

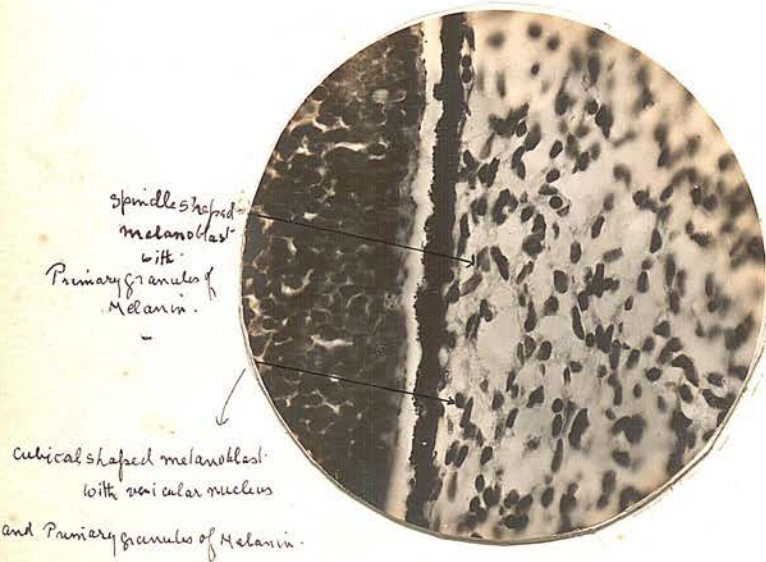


Fig 1.



Human Embryo. late 6<sup>th</sup> week pregnancy.  
15.6 mm. (spiral)

Fig 2.



Spindle shaped melanoblast with Primary granules of Melanin.

Cubical shaped melanoblast with vacuolar nucleus and Primary granules of Melanin.



- spindle shaped melanoblast

Cubical shaped melanoblast

Developing eye of above embryo.  
showing  
Pigmented ectoderm (retina) in contact with mesoderm (choroid) containing detached and migrating melanoblasts

Specimen of Human Embryo, presented with this Thesis

Plate 1. (b)

Age from Clinical History late 6th week of pregnancy  
length 15.6 mm.

Slide 2 (b). Developing eye from specimen.

The microscope shows that the neuroepithelial cells of the retina are fairly well pigmented, with discrete granules of primary melanin. The large pale staining vesicular nucleus is well seen in each cell.

The retina is still in contact with the developing mesodermic choroid, and neither the homogenous membrane of Bruch, nor the fine vessels of the Choriocapillaries can be distinguished. Two migrating cells may be seen in the mesoderm of the developing choroid at a short distance from the retina, these cells are totally different in shape from each other, for one is cubical and the other spindle shaped.

However, both cells are found to contain discrete granules of melanin pigment, exactly similar to the primary granules of melanin in the retinal cells in situ. The cubical cell possesses a pale staining nucleus exactly similar to the retinal cells, and this is well seen. However, the nucleus of the spindle cell is for the greater part hidden from view, but with an oil immersion its pale staining vesicular character is indicated (see Fig. 3 Plate 1 (b)).

Note Stage of development. The only reliable means of obtaining the stage of early embryonic development at which the ectodermic melanoblasts, become detached from the retina, and then migrate into the mesoderm is by the microscope.

That stage of development is before the appearance of the homogenous membrane of Bruch, and the vascular choriocapillaries, when ectoderm is in direct contact with mesoderm. Embryos like adults differ as regards length when arriving at a particular stage of development, for heredity plays some part, also clinical histories can only be approximately accurate.

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