



Histotechnical Virtual Review of Pigmentary Retinal Epithelium

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For the sequencing of OCT images to histological morphology, the postulates of Fourier Physics and Mathematics are generally followed with their transforms, Shannon's Theory of Information and the concepts of Gödel's logic using the pixelometry for the drusa study in the retinal tissue (non invasive digital retinal biopsy).

We study the pigmentary epithelium and can appreciate images of the different constituents ,degradation and production of .hyaline substance.

This is a physical look at biology, interpreting the histological structures through and from non-invasive images such as OCT (tomographic), and constituting a true digital optical biopsy.

This allows us to demonstrate how a tissue unit of pigment epithelium cells in vital position (physical image in situ of a pigment epithelium cell) and consequently its variations in pathological conditions showing its pigment variations, mobilization of the same and appearance of degenerative processes with accumulation of degradation substances.

The determination of the number, size, shape and layout of pixels represented by the cell as a whole, It was done using as a threshold the average of the total pixels of the image. This it has allowed us to label each pixel as belonging to the background or the cell. To obtain the pixels corresponding to the nucleus, the threshold was used gray level values corresponding to the left inflexion points and right of the curve to the left of the histogram; and, for the pixels corresponding to the cytoplasm, the left and right inflexion points of the curve to the right of the histogram. Thus, the

cellular interstitium and its variations due to hyaline accumulation phenomena, as well as degenerative changes, are also evaluated.

The methodology is repeatedly pixelometric, pixelográfico and could be added pixeloarquitectural. Each binary image, which taken to the subcellular level can be a protein has a code based on pixels, with so many probabilities that it exceeds the genome [1-11].

Bibliography

1. Zárate JO., *et al.* "A new method of tissue and cell identification with ophthalmic applications". *Patología* 50.3 (2012): 179-181.
2. Zárate JO. "Optical Digital Biopsy. Brush strokes and pixels in the wonderful Latinamerican iconography". *Patología* 51.3 (2013): 206-209.
3. Zárate JO. "Digital optical biopsy. Possible extension to no other ophthalmic tissue". *Patología Revista Latinoamericana* 52 (2014): 246-247.
4. Zarate JO. "The pixelometría. New non-Euclidian geometry, biological importance". *Patologia* 51.3 (2014): 206-209.
5. Zárate JO. "Optical Digital Biopsy: Uveal Choroidal Melanoma: Case Report and Update of Technology". *Open Science Journal of Clinical Medicine* 3.2 (2015): 59-63.
6. Zarate JO., *et al.* "Digital Optical Biopsy. Scores of pixels for processing images of optical coherence tomography to microscopy". *Patología Rev Latinoam* 54.4 (2016): 206-208.

7. Zárate JO. "Digital Optical Biopsy of the retina". *WJOV* 52 (2019): 1-3.
8. Zarate JO. "New paradigm in the observation of pigmentary epithelium of the retina". *JOJ Ophthalmology* 7.2 (2018).
9. Zárate Jorge Oscar, *et al.* "Optical Digital Biopsy: Subcellular Identification and Update of Technology". *Open Science Journal of Bioscience and Bioengineering* 2.2 (2015): 29-32.
10. Zarate Jorge Oscar, *et al.* "Microscopic Aspects of Digital Optical Biopsy Cromosomal View". *Open Science Journal of Bioscience and Bioengineering* 2.4 (2015): 37-40.
11. Zarate JO and Sampaolesi R. "Morphological parameters of intraocular tumours taking part in ecographical tracings". *Ultrasonography in Ophthalmology*.

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