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Fabio Galli

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Learning from one another in medical encounters

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Résumé de l'article

Optical Coherence Tomography (OCT) in retinal imaging has evolved rapidly over the last twenty years. Along with these changes in technology, the nomenclature and relationships between healthcare professionals and patients have changed as well. How to translate the complex language of the field such that patients can understand it better is the focus of this paper.

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FROM SCIENCE TO ADAPTED PATIENT EDUCATION IN RETINAL OPTICAL COHERENCE TOMOGRAPHY

How terminology influences diagnostic understanding

Fabio Galli
Medical Education Student, United Kingdom
fagalli@gmx.co.uk

ABSTRACT

Optical Coherence Tomography (OCT) in retinal imaging has evolved rapidly over the last twenty years. Along with these changes in technology, the nomenclature, and relationships between healthcare professionals and patients have changed as well. How to translate the complex language of the field such that patients can understand it better is the focus of this paper.

KEYWORDS: Patient-centred medicine; Medical education; Communication

INTRODUCTION

Optical Coherence Tomography (OCT) [1, 2], from its inception to today, has become a tool for daily clinical diagnosis, follow-up, and research. In 2020 there were 6,403 results (National Library of Medicine) under the heading OCT compared to only 1 in 1991 from the same source (for a total of 49,847 search results for OCT terminology from 1991 to 2020). The first OCT technology was called Time-Domain (TD-OCT); subsequently, OCTs called Fourier Domains (FD) were better known as

OCT Spectral Domain (SD-OCT) and OCT Swept-Source (SS-OCT) [3]. Like OCT retinal imaging technologies, patients have changed too. Currently, patients have a greater access to information, and they are more interested in comprehending it. Patients are increasingly at the centre of clinical activity; thus, a different, simpler education is required. Moreover, with the updating of technologies, the nomenclature has changed - adapting to the new possibilities of observation [4,5,6,7,8]. In patient-centred management, it is important to relate to patients in a clear way such that they can understand what the healthcare staff communicates. It is equally useful in this approach to offer educational tools consisting of understandable information. As seen in Diagram 1, the role of medical education and health personnel is to increase the patients' comprehension.

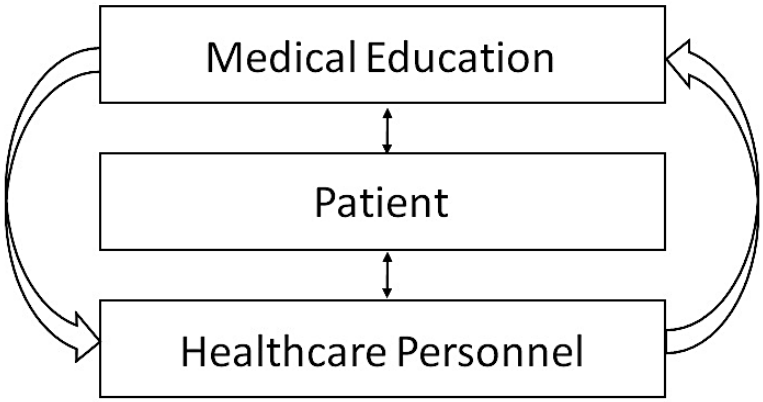

Diagram 1: The diagram represents the centrality of the patient, the role of the healthcare personnel, and the role of medical education.

SCIENTIFIC NOMENCLATURE AND PROPOSAL NOMENCLATURE FOR PATIENT EDUCATION [4,8,9]

Table 1: Nomenclature of retinal layers, reference points, and proposal of information and education for the patient.

Scientific Nomenclature OCT Layers / Reference points	Definition for Patient Education OCT Layers / Reference points (Educational / Informative Proposal)
Vitreous	Gel inside the eye.
Macula	Central area of the retina.
Fovea	Central area of the macula, hollow in shape. Fovea is the area responsible for sharp central vision.
ONH Optic Nerve Head	Convoy area of Retinal Nerve Fibers in the communication between retina and brain, and vascular convoy.

ILM Inner Limitant Membrane	Dividing film between retina and vitreous.
RNFL Retinal Nerve Fiber Layer	Retinal Nerve Fibers that transmit information to the brain.
GCL Ganglion Cell Layer	
IPL Inner Plexiform Layer	
INL Inner Nuclear Layer	Area of interconnection between Retinal Nerve Fibers and photoreceptors.
OPL Outer Plexiform Layer	
ONL Outer Nuclear Layer	Photoreceptor area, transformation of the light pulse.
ELM External Limiting Membrane	
IS/OS Junction Inner-Outer Junction	
IZ Interdigitation Zone	
RPE/BM Complex Retinal Epithelium Pigment + Bruch's Membrane	Area of absorption of diffused light, processing of photoreceptor waste, division, and interaction with the underlying vascular area.
CC Choroidal complex	Vascular area.

Table 2: Nomenclature of the most common signs observable in OCT and proposal of information and education for the patient.

Scientific Nomenclature OCT Signs	**Definition for Patient Education Explanation of the Signs (Educational / Informative Proposal)**
Myodesopsia	Clots of vitreous.
VMA Vitreomacular Adhesion	The vitreous is normally connected to the retina.
PVD Posterior Vitreous Detachment	The vitreous is detached from the retina.
VMT Vitreomacular Traction	The vitreous in an attempt to detach from the retina exerts traction and changes its shape.
MH Macular Hole	The layers that make up the retina are disrupted.
PMH Pseudo Macular Hole	The layers of the retina are not interrupted, it's a simulation of the interruption of the layers of the retina.

Drusen (Hard, Soft, Cuticular)	Waste material of the visual cycle not properly eliminated and accumulation of extracellular material.
RPD Reticular Pseudodrusen	
SRF Subretinal Fluid	Separation between the retina and the retinal pigment epithelium caused by the presence of fluid.
CME Cystoid Macular Oedema	Liquid accumulated in bubbles under the macula area.
Type 1 MNV Macular Neovascularization 1	Abnormal vascular growth in the retina and choroid.
Type 2 MNV Macular Neovascularization 2	
Type 3 MNV Macular Neovascularization 2	
PCV Polypoidal Choroidal Vasculopathy	
IRF Intraretinal Fluid	Rounded bubble-like areas.
Haemorrhage	Presence of blood, abnormal bleeding.
RORA Retinal Pigment Epithelial Atrophy and Outer Retinal Atrophy	Complete or partial loss of one or more layers (of the RPE or photoreceptors).
Lipid (Hard Exudates)	Small, rounded areas in the retinal or sub-retinal area.

CONCLUSION

Using the definitions of various terms shown in table 1 and 2 offers the possibility of reaching out to patients in a way they can understand and share decision-making. Explanations must be tailored to the person's level of education such that they remain at the centre of medical encounters and healthcare procedures, as exemplified herein with retinal optic coherence tomography [10,11,12,13].■

CONFLICTS OF INTEREST

No conflicts of interest to declare.

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