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Case Report

The Rise of the PEDs

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Abstract

We document the presentation of progressive rise of two adjacent pigment epithelial detachments (PEDs) in a case of central serous chorioretinopathy (CSCR), by optical coherence tomography (OCT).

Case documentation of OCT radial scans demonstrating PED dynamics. OCT revealed two adjacent PEDs that progressively increased in height while the associated subretinal fluid remained stable. The underlying choroid appeared thickened.

Keywords: Central serous chorioretinopathy (CSCR); Pigment Epithelial Detachment (PED); Retinal Pigment Epithelium (RPE)

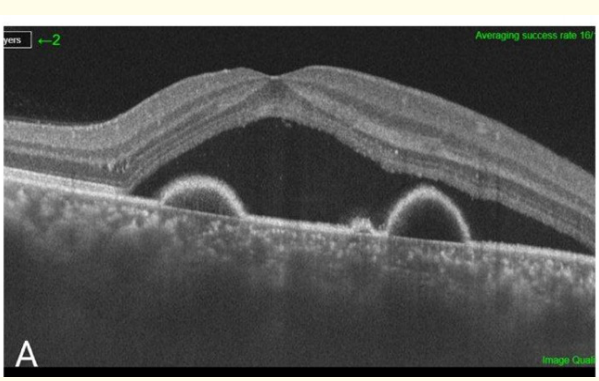
Introduction

Central serous chorioretinopathy (CSCR) is a common chorioretinal disorder characterized by serous detachment of the neurosensory retina, often associated with pigment epithelial detachment (PED). PEDs represent localized detachments of the retinal pigment epithelium (RPE) and may vary in morphology and progression. Although PEDs are commonly seen in CSCR, the observation of two adjacent PEDs rising progressively while subretinal fluid remains stable is uncommon. We report such a case documented with serial OCT imaging.

Case Report

A patient with CSCR underwent OCT imaging, which revealed two adjacent PEDs in the macular region. Serial radial scans demonstrated a progressive increase in the height of both PEDs over time, while the amount of subretinal fluid remained stable throughout (Figure 1A–C). The underlying choroid appeared thickened, consistent with pachychoroid features often associated with CSCR.

The sequential rise of the PEDs without a concurrent increase in subretinal fluid represents a unique OCT finding that provides additional insights into the pathophysiology of CSCR.



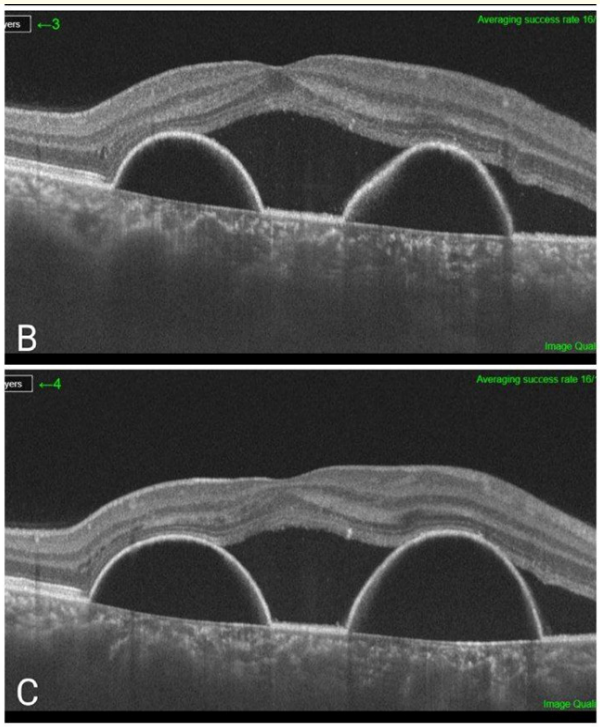


Figure 1: A, B, C. OCT image showing radial scans in which the serous fluid remains the same while the two PEDs rise subsequently.

Discussion

PEDs in CSCR are thought to result from focal RPE dysfunction and leakage secondary to increased choroidal hydrostatic pressure. The dynamics of PEDs can vary widely, with some remaining stable, others regressing spontaneously, and some progressing to more complex forms such as vascularized PEDs.

In this case, the equal and progressive rise of two adjacent PEDs, despite stable subretinal fluid, suggests localized variations in RPE barrier function and choroidal permeability. Such findings emphasize the importance of OCT in tracking PED morphology and fluid dynamics in CSCR. Careful monitoring can guide the timing of therapeutic interventions such as photodynamic therapy or mineralocorticoid receptor antagonists, thereby preventing long-term visual loss [1,2].

Conclusion

This case illustrates the unusual phenomenon of two adjacent PEDs rising progressively in CSCR while subretinal fluid remained stable. OCT proved invaluable in documenting these dynamic changes, highlighting its role in disease monitoring and guiding management decisions.

Financial Support and Sponsorship

Nil.

Conflict of Interest

No conflicts of interest.

Declaration of Patient Consent

The author certify that they have obtained all appropriate patient consent forms. In the form the patient has/have given his/

her consent for his/her image and other clinical information to be reported in the journal. The patient understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Bibliography

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