ROLE OF CEREBROSPINAL FLUID IN OPTIC DISC PIT MACULOPATHY: AN OCT STUDY OF THREE CASES

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Purpose: Optic disc pit (ODP) is a rare congenital optic disc abnormality characterized by a localized grayish-white depression usually in the center or inferotemporal part of the optic nerve head. It is generally unilateral (85-90%) and its prevalence is estimated to be 1 in 11,000. Unless the ODP develops maculopathy, patients remain asymptomatic. Serous macular detachment may occur in up to 50% of cases, leading to significant decrease in visual acuity. Although the pathogenesis of ODP maculopathy is unclear, various theories about its onset have implicated fluid entry either from the vitreous cavity or from leakage of cerebrospinal fluid through the peripapillary subarachnoid space. The aim of this study was to evaluate the source of subretinal fluid under the macula in three patients with ODP. Methods*:* Three different optical coherence tomography (OCT) equipments (EDI SD-OCT Spectralis, Heidelberg; DRI SS- OCT Triton, Topcon, y Spectral-domain 3D OCT-2000, Topcon) were used. Results*:* These OCT images revealed a direct communication between a prominent serous macular detachment and the subarachnoid space through the ODP. Conclusions: These three cases support the theory that, in some cases, the source of serous macular detachment could be cerebrospinal fluid passing into the retina through the ODP due to an incomplete closure of the embryonic fissure. Financial disclosure*:* The authors declare no conflict of interest.