

The Uses of Photodynamic Therapy versus Anti-vascular Endothelial Growth Factor in the Management of Acute Central Serous Chorioretinopathy: Systematic Review and Meta-Analysis

Authors : Hadeel Seraj, Mohammed Khoshhal, Mustafa Alhamoud, Hassan Alhashim, Anas Alsaif, Amro Abukhashabah

Abstract : Central serous chorioretinopathy (CSCR) is an idiopathic retinal disease characterized by localized serous detachment of the neurosensory retina at the macula. To date, there is no high-quality evidence of recent updates on treating acute CSCR, focusing on photodynamic therapy (PDT) and anti-vascular endothelial growth factor (anti-VEGF). Hence, this review aims to systematically review the latest treatment strategies for acute CSCR. Methodology: The following electronic databases were used for a comprehensive and systematic literature review: MEDLINE, EMBASE, and Cochrane. In addition, we analyzed studies comparing PDT with placebo, anti-VEGF with placebo, or PDT with anti-VEGF in treating acute CSC eyes with no previous intervention. Results: Seven studies were included, with a total of 292 eyes. The overall positive results were significantly higher among patients who received PDT compared to control groups (OR = 7.96, 95% CI, 3.02 to 20.95, $p < 0.001$). The proportions of positive results were 81.0% and 97.1% among patients who received anti-VEGF and PDT, respectively, with no statistically significant differences between the groups. In addition, there were no significant differences between anti-VEGF and control groups. In contrast, PDT was significantly associated with lower recurrence odds than the control groups (OR = 0.12, 95% CI, 0.04 to 0.39, $p = 0.042$). Conclusion: According to our findings, PDT showed higher positive results than Anti-VEGF in acute CSCR. In addition, PDT was significantly associated with a lower recurrence rate than the control group. However, the analysis needs to be confirmed and updated by large-scale, well-designed RCTs.

Keywords : central serous chorioretinopathy, Acute CSCR, photodynamic therapy, anti-vascular endothelial growth factor

Conference Title : ICRRD 2023 : International Conference on Retinoblastoma and Retinal Disorders

Conference Location : Jeddah, Saudi Arabia

Conference Dates : February 20-21, 2023