ABSTRACT

Background : Management of Optic Neuropathy associated with meningioma has always been controversial. Strategies for managing this type of optic neuropathy includes observation alone, radiation treatment, or surgical excision. An interdisciplinary team from Ophthalmology, Neuro-Surgery, and Radiology Oncology is crucial for determining the best option for treatment. Many factors of the diagnosis may contribute to the decision making. This study aims to evaluate the most effective strategy for patients diagnosed with ON due to meningioma.

Methods : The research design used was retrospective cohort which uses data extracted from electronic medical records, in the last 3 years, from the Neuro-Ophthalmology department in Eye Polyclinic in dr. Sardjito Hospital Yogyakarta of patients diagnosed with optic nerve compression by meningioma. Data was collected after ethical clearance was issued to obtain information on patients' age, gender, diagnosis of optic neuropathy, managements, characteristics of meningioma, Visual Acuity result, IOP evaluation, and Eye Perimetry test result.

Results : A total of 45 patients were included in the inclusion criteria. Although statistical analysis did not show a significant difference ($p > 0.05$), the clinical trend favored surgical management as a more effective approach in improving or stabilizing visual function. A significant factor ($p < 0.05$) in the surgical group that contributed to treatment choice was tumor size (volume).

Conclusions: Patients who underwent surgical intervention demonstrated a higher proportion of visual improvement, particularly in visual acuity. Surgical management had the most departments involved in the process, showing a more favorable outcome within a more variative interdisciplinary management. Interdisciplinary collaboration among Ophthalmology, Neurosurgery, and Radiology departments contributed to more comprehensive decision-making and improved patient outcomes.

Keywords: Surgical, Observational, Interdisciplinary Management, Meningioma, Visual Acuity