

# Insights into optic disc swelling: diverse etiologies and management strategies

**Nur Athirah Muzammil<sup>1</sup>, Hui Gim Khor<sup>1</sup>, Shahidatul Adha Mohamad<sup>2</sup>, Hsin Yi Lee<sup>1</sup>**

<sup>1</sup>Department of Ophthalmology, Hospital Miri, Sarawak, Malaysia, <sup>2</sup>Department of Ophthalmology and Visual Science, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

## ABSTRACT

Bilateral optic disc swelling can result from various underlying conditions, such as papilloedema, autoimmune diseases, infections and less commonly, superior sagittal sinus thrombosis. This case series aims to illustrate the diverse aetiologies and management approaches for optic disc swelling. Case 1: A 30-year-old male presented with fever, headache, nausea, and blurred vision. Fundoscopy revealed bilateral optic disc swelling. A lumbar puncture confirmed elevated intracranial pressure and a positive cryptococcal antigen. The patient was treated with systemic amphotericin B and flucytosine, resulting in clinical improvement. Case 2: A 28-year-old woman presented with blurring of vision and diplopia for two weeks associated with headache and vomiting. Examination revealed bilateral abducens nerve paresis with optic disc swelling. Computed tomography venography revealed empty delta sign, suggestive of superior sagittal sinus thrombosis. Anticoagulation therapy was initiated, leading to significant improvement in visual function and resolution of optic disc swelling. Case 3: A 37-year-old woman with a history of exposure to cats presented with right eye reduced vision for two days. Fundoscopy showed bilateral optic disc swelling with a right macular star. Treatment with oral azithromycin resulted in complete symptom resolution. This case series demonstrates the importance of a comprehensive diagnostic evaluation for optic disc swelling. Tailored treatment based on the underlying cause can lead to favourable outcomes, emphasising the importance of a holistic and multidisciplinary approach.