

A case of traumatic submacular haemorrhage treated with pneumatic displacement

Lee Shu Ching, Wang Shir Yen, Kiu Kwong Yew

Department of Ophthalmology, Hospital Umum Sarawak, Kuching, Sarawak, Malaysia

ABSTRACT

Submacular haemorrhage (SMH) can lead to significant vision loss due to conditions such as trauma, age-related macular degeneration, and surgery. Traumatic SMH presents a unique challenge as it can cause rapid and severe visual impairment. Pneumatic displacement is a proven treatment for certain cases of SMH, providing a minimally invasive way to reattach the neurosensory retina and enhance visual outcomes. A 33-year-old gentleman presented to casualty with central vision loss over his right eye following an assault. His presenting visual acuity was hand movements. Dilated fundus examination revealed a right large subretinal haemorrhage involving the fovea and commotio retina. Optical coherent tomography demonstrates a tall subretinal hyperreflective material with neurosensory retinal detachment. Pneumatic displacement was performed with intravitreal injection of 0.3 mL of perfluoropropane (C₃F₈) gas with facedown position. Post operation the haemorrhage was successful displacement with improvement of vision to 6/36. SMH can result in photoreceptor damage due to iron toxicity, fibrin meshwork contraction, and reduced nutrient flux, ultimately leading to macular scarring. Pneumatic displacement stands as one of the treatment options for addressing SMH. This case highlights the significance of early intervention in instances of SMH to prevent permanent vision impairment.