Leukaemic retinopathy: a case series

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ABSTRACT

Leukaemic retinopathy is a significant ocular complication observed in leukaemia. Up to 69% of all patients with leukaemia showed fundus changes during the course of their disease. To describe three cases of leukemic retinopathy and compare their visual outcome with and without treatment. Case 1: A 26-year-old Malay male with a known case of acute myeloid leukaemia and still undergoing chemotherapy presented with painless, sudden blurring of vision in both eyes for four days. His visual acuity was CF (OD) and 6/18 (OS). Fundus examination revealed multilayered retinal haemorrhages and Roth spots in both eyes. Two months later, his visual acuity improved to 6/18 (OD) and 6/9 (OS), with reduced haemorrhages and fading of Roth spots. Case 2: A 53-year-old Malay male presented with painless, sudden blurring of vision in both eyes for one day. His visual acuity was 6/12 (OD) and 6/36 (OS). Fundus examination showed multilayered retinal haemorrhages and Roth spots. He was then investigated and diagnosed to have chronic myeloid leukaemia. He was started on chemotherapy. One month later, his visual acuity improved to 6/9 in both eyes with corresponding improvement in fundus findings. Case 3: A 32-year-old Malay male presented with sudden, painless scotoma in the right eye for two days, associated with weight loss. Fundus examination showed bilateral swollen optic discs with multiple layer of retinal haemorrhages and Roth spots. His white cell count was 244 × 10^3/μL. He was referred for leukaemia management but did not pursue treatment. His vision remained unchanged upon phone follow-up. Ocular manifestation can be one of the signs in diagnosing and monitoring haematological malignancy. Chemotherapy is the primary treatment modality and may improve the visual outcome if treated accordingly.