

Chronic myeloid leukaemia presenting with bilateral papilloedema

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A 19-year-old man presented with a 1-month history of visual obscurations and occipital headache. Examination showed bilateral optic disc swelling with preserved vision (**Figure 1a**) and splenomegaly. Magnetic resonance imaging showed mild tonsillar descent (**Figure 1b**) without venous sinus thrombosis.

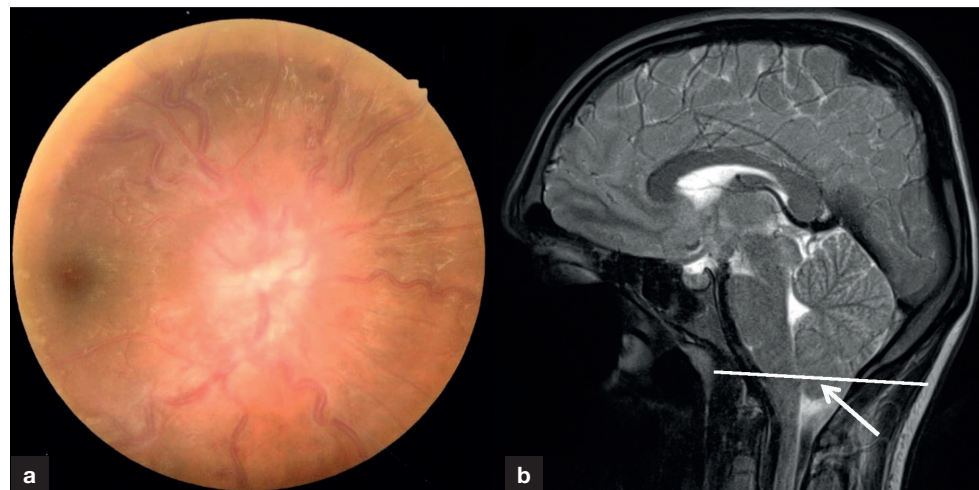


Figure 1. Fundal photographs of the right eye. a. Gross papilloedema with multiple bilateral cotton wool spots, engorgement and tortuosity of the retinal blood vessels, and retinal haemorrhages. Similar appearances were noted in the left eye. b. Magnetic resonance imaging of the brain, T2 sagittal view, shows tonsillar descent (arrow) below the foramen magnum (line).

Blood tests revealed a white cell count of $578 \times 10^9/\text{litre}$ (range $4.00\text{--}11.00 \times 10^9/\text{litre}$). Blood film showed early myeloid cells, blast cells and basophils. Cytogenetics confirmed BCR-ABL1 rearrangement in keeping with chronic myeloid leukaemia.

He started imatinib with good response, and his visual symptoms resolved. Lumbar puncture was not performed as disc appearances were felt to be caused by hyperviscosity rather than CNS infiltration.

High pressure features (headache, papilloedema) are well-described in chronic myeloid leukaemia during blast crises. Presentations similar to idiopathic intracranial hypertension are described, potentially as a result of hyperviscosity affecting CSF resorption (Sharma et al, 2018).

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Reference

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