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Tuesday, Sep 11, 2012, 11:15 AM - 1:15 PM

**Presentation Title: M-1670 - Neurological, Visual, And MRI Brain Scan Findings In 87 South African Patients With HIV-associated Cryptococcal Meningoencephalitis**

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**Abstract:** Background: HIV-associated cryptococcal meningoencephalitis (CM) is a leading cause of adult meningitis in sub-Saharan Africa. Neuroradiological data is however limited to case reports and small case series from developed countries and/or immunocompetent patients. Methods: 87 patients aged  $\geq 18$  with a first episode of CM had MRI imaging during the first two weeks of admission. A subset of 11 patients had follow-up scans approximately one month from their initial MRI scan. All had prospectively-recorded, detailed neurological and visual examinations. Results: 33/85 (39%) patients had an abnormal finding on neurological examination. 38/85 (48%) of patients had visual loss, as defined by a visual acuity of  $< 6/6$  in either eye. 55/87 (63%) patients had lesions presumed to be cryptococcosis-related, as defined by the presence of: dilated Virchow Robinson spaces (36%), pseudocysts or cryptococcomas (22%), enhancing nodules (27%), hydrocephalus (20%), meningitis (28%), oedema (16%) and infarcts (20%). 18/87 (21%) had MRI findings suggestive of a second diagnosis. Visual loss correlated with the presence of presumed cryptococcal-related lesions ( $p=0.02$ ). Of 11 patients with paired scans, brain swelling was identified on the initial scan in only one patient, whose CSF opening pressure was over 50 cmH<sub>2</sub>O. Conclusion: The majority of patients had MRI brain scan abnormalities presumed secondary to CM. Scanning may also suggest additional treatable diagnoses. Visual loss was associated with the degree of cerebral involvement as reflected by the presence of MRI abnormalities. Initial generalised brain swelling does not appear to be common, but further studies with paired scans are needed.