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Poor long-term outcomes for cryptococcal meningitis in rural South Africa

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Objectives. To explore linkage to and retention in HIV care after an episode of cryptococcal meningitis (CM) in rural South Africa.

Design. A retrospective case series of adult individuals (≥16 years old) with laboratory-confirmed CM from January - December 2007 at Hlabisa Hospital – a district hospital in northern KwaZulu-Natal.

Outcome measures. Inpatient mortality and associated risk factors were analysed. The proportion alive and on antiretroviral therapy (ART) at 2 years was determined by linkage to the HIV treatment programme.

Results. One hundred and four individuals were identified with laboratory diagnosis of CM; 74/104 (71.2%) with complete records were included in the analysis. Inpatient mortality was high (40.5%) and was significantly associated with reduced conscious level (aHR 3.09, 95% CI 1.30 - 7.33) and absence of headache (aHR 0.33 for headache, 95% CI 0.13 - 0.87). Only 8 individuals (10.8% of all study subjects) were alive and receiving ART 2 years after the CM episode.

Conclusions. Long-term outcomes of CM are poor in routine practice. Interventions to strengthen linkage to HIV treatment and care and continuation of secondary fluconazole prophylaxis are critical.

alone subsequently initiated ART. Only 8 (10.8% of all subjects, 95% CI 8.7 - 12.8) were alive and receiving ART 2 years after the CM episode. For the 10 confirmed deaths post-discharge, the median time to death was 133 days (IQR 43 - 230).

There was no evidence that included patients (N=74) differed from those excluded (N=30) in terms of sex (p=0.73), age (p=0.13), CSF protein (p=0.35), CSF glucose (p=0.31) or CSF lymphocyte count (p=0.26).

Discussion

These data from routine practice in a rural health district show poor long-term outcomes and highlight the challenges faced by overburdened health services in delivering comprehensive HIV care in high-prevalence settings. The short-term mortality is comparable with data from similar settings, but higher than reports from clinical trials or tertiary hospitals.

About 1 in 10 of our patients were known to be alive on ART at 2 years, compared with: 60% at 12 months in a clinical trial in Cape Town; 40.9% at 12 months in a cohort in a Ugandan clinical trial; and 27% at 3 years in a trial in Zimbabwe. Inpatient mortality was associated with more severe disease (reduced conscious level and absence of headache), as also suggested in a neighbouring hospital associated with more severe disease (reduced conscious level and 27% at 3 years in a trial in Zimbabwe). Inpatient mortality was uncommon, mainly owing to drug supply problems, in accordance with national-level data showing high inpatient mortality, although we could not confirm this. Amphotericin B treatment was uncommon, mainly owing to drug supply problems, in accordance with national-level data showing high inpatient mortality, although we could not confirm this.