ntrathecal amphotericin B deoxycholate (AmB-d) can be prescribed as an adjunct to systemic therapy for severe or recalcitrant cases coccidioidal meningitis. Recently intravenous (IV) Liposomal amphotericin B (L-AmB) has been recommended as monotherapy therapy for refractory coccidioidal meningitis based on its advantages over (AmB-d), however, its intrathecal use has not been reported. Moreover, there is nothing in the literature quantifying clinical improvement with objective laboratory data in human patients. Consequently, there are no guidelines on how to monitor regularly for improvement of coccidioidal meningitis with treatment of intrathecal L-AmB. The present case addresses both of these. We report intrathecal use of L-AmB for refractory coccidioidal meningitis. Our data demonstrate that there is a correlation between clinical improvement and a decrease in cerebrospinal fluid (CSF) white blood cells (WBC's), protein, and coccidioidal titers with treatment of intrathecal L-AmB with serial collection of CSF studies at the same site, in our case via collection through an external ventricular drain (EVD). As a result, one may postulate that serial CSF collection can be used to monitor the treatment of coccidioidal meningitis; however this case also addresses the risk of developing ventriculitis with sustained EVD placement [1)].

1)

Fiani B, Nguyen A, Quadri SA, Farooqui M, Zafar A, Sodhi A, Kerkar S, Nacionales D, Fischberg GM. Trending serial CSF samples to guide treatment of refractory coccidioidal meningitis with intrathecal liposomal amphotericin. Clin Neurol Neurosurg. 2019 Apr 5;181:41-43. doi: 10.1016/j.clineuro.2019.03.019. [Epub ahead of print] PubMed PMID: 30986725.