Letter to Editor on "Lacunar Stroke in Cryptococcal Meningitis: Clinical and Radiographic Features"

We read with much pleasure the article "Lacunar Stroke in Cryptococcal Meningitis: Clinical and Radiographic Features" by Vela et al published in the Journal of Stroke and Cerebrovascular Disease.[1] Authors have done a commendable job at describing the clinical and radiographical details of stroke in a cohort of patients with cryptococcal meningitis. Authors have collected extensive data over 18 years from the University of Colorado Hospital, and have identified 42 patients. Among these, 32 (76%) of the patients had available neuroimaging. A similar study done in the past on patients with cryptococcal meningitis had included only 43% of patients with neuroimaging, among whom 13% had infarcts.[2] It is clear that neuroimaging is not done in all patients in the present study as well, hence the actual rate of ischemic events could be more as compared to the projected rate (26%). In patients with cryptococcal meningitis, a computed tomography (CT) brain done to evaluate features of raised intracranial pressure (ICP) would not be enough to differentiate small lacunar infarcts from cryptococcomas, pseudocyst, or artifacts. Hence, magnetic resonance imaging is the optimal modality to visualize the same.[2,3] However, the same is not routinely done for all patients with cryptococcal meningitis. The authors have not commented regarding the need of imaging in the 32 patients, however previous studies have used neuroimaging in order to identify vascular events in patients with cryptococcal meningitis, in the presence of (1) persistent low sensorium, (2) decline in sensorium, and (3) new onset focal neurological deficit.[2,4] Authors have mentioned that 7 (88%) out of 8 patients with infarcts had altered mental status and cognitive deficits as compared to 15 (63%) out of 24 patients without an infarct.

Authors have also reported a higher rate of meningeal enhancement in 12 (92.3%) patients with stroke, which is different from the previous reports. As the numbers and the frequencies reported do not add up, a clarification on the same would be helpful.[2,4]

Some of the postulated mechanisms for infarcts among these patients have been inflammation of vessels while passing through basal exudates and progressive spread of inflammation from meninges,[2,5] did the authors notice a difference in the numbers of the same among patients with and without stroke? There have been reports of concomitant infection with Cytomegalovirus, Herpes Zoster virus, Treponema pallidum, Mycobacterium tuberculosis, and Toxoplasmosis in patients with AIDS and severe immunosuppression. While a complete cerebrospinal fluid (CSF) examination is enough to rule out the same, the reader needs to be aware of these co-infections attributing to neurovascular involvement as well.

Along with cognitive decline, hearing and speech impairment, the decline in vision including lateral rectus palsy, and papilledema are also common complications following cryptococcal meningitis.[6,7] Did the authors notice any such complication among these patients? Was there a difference in the duration or regimen of treatment across both the groups? Reported death among the patients in this study is 19% as compared to 30%-40% reported in previous studies and clinical trials.[2,8] Could this be because of the small sample size or absence of features of severe cryptococcal meningitis among this subgroup of patients?

In conclusion, in this study the authors have reinforced the fact that presence of infarct in patients with cryptococcal meningitis is associated with significant neurological disability in a Caucasian population. We agree with the authors that this infectious vasculopathy requires increased recognition and further prospective studies in order to decrease morbidity and mortality related to the same.

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