Sir,

We agree with the authors that, the risk (low cholesterol) was not identified before the event (intra-cerebral hemorrhage) onset in our study. Potential source of error in our study is the use of lipid values within 48 hours of the ICH as estimates of the pre-hemorrhage levels. We had already admitted this limitation in our paper. Segal AZ et al.,[1] in a better study design, taking serum cholesterol level at 3 months after ICH as an estimate of pre ICH cholesterol level also found the inverse association between low cholesterol and risk of ICH. The association of pre ICH cholesterol level and risk of ICH was studied by K Yano et al.[2] as a part of Honolulu heart program and inverse association between serum cholesterol and risk of ICH was found. We agree that proper assessment of risks and benefits of low cholesterol level will only be established by a large cohort study.

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Management of hydrocephalus in tuberculous meningitis

Sir,

I read with interest the articles regarding the guidelines of various neurological disorders (Annals of Indian Academy of Neurology Volume 14, Suppl 1, July 2011). It is very informative and something which was very much needed, in terms of guidelines for treating neurological disorders in the Indian scenario. I have a comment regarding the article on cerebral malaria and bacterial meningitis (Mishra UK et al). The role of surgery in the management of hydrocephalus has not been correctly mentioned. It is reported that ventriculoperitoneal shunt is the treatment of choice. This is not the case now. These patients can be candidates for endoscopic third ventriculostomy (ETV). In a retrospective analysis of 203 patients with a follow up of up to 22.6 years, the overall probability of success (failure defined as shunt insertion, ETV revision or death) was 89%.[1]

The only statistically significant factor associated with long-term reliability was age. Studies done in hydrocephalus due to tuberculous meningitis, which is a major cause in our country, ETV has shown success rates ranging from 40-60%.[2-4] The ventriculoperitoneal shunt leaves an implant inside the body which has its own set of complications like infection, blockage, extrusion which cause significant morbidity and occasional mortality. Other than these issues shunting an isolated fluid space creates a pressure differential across the obstruction which is not physiological. Endoscopic techniques, on the other hand are more physiological in creation of normal cerebrospinal fluid (CSF) flow or bypassing an obstruction. A sincere attempt to establish CSF pathway by an endoscopic method should be done before placing a shunt. I agree that in deeply comatose patients (TBM grade III and IV) a trial of CSF drainage would help in deciding the candidates for surgery.[5]

The management of hydrocephalus in tuberculous meningitis has undergone a change since the advent of neuroendoscopy. Ventriculoperitoneal shunt is no longer the treatment of choice in all cases. These patients should undergo an endoscopic procedure, which has shown promising results and more importantly saves these patients of the shunt related complications.

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