

LETTERS TO THE EDITOR

Aneurysmal Subarachnoid Hemorrhage: A Look into Recent Guidelines



Sumit Roy Chowdhury, Charu Mahajan* and Ashish Bindra

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To the Editor

Management of aneurysmal subarachnoid hemorrhage (aSAH) is rapidly evolving, and major guidelines from the two most reputed societies are expected to enormously aid the clinician in making the right decision [1, 2]. The guidelines by the Neurocritical Care Society (NCS) have focused on nine key topics of neurocritical care management [1], whereas the guidelines by the American Heart Association/American Stroke Association (AHA/ASA) also discuss other central facets of aSAH management [2]. Both guidelines are concordant in almost all aspects; however, a subtle difference that might impact the management needs to be discussed. Hyponatremia, natriuresis, and hypovolemia are frequently encountered complications of aSAH, which unfortunately affect the hospital course of these patients. The evidence has been inconsistent regarding its effect on vasospasm and delayed cerebral ischemia (DCI), which makes it difficult to have clear recommendations regarding it. Fludrocortisone or hydrocortisone have been used and have been beneficial in such situations to improve the sodium balance. However, the favorable effect of fludrocortisone on outcome has not been consistent [3, 4]. After a meticulous discussion of the pros and cons, the AHA/ASA has suggested a level 2a recommendation (reasonable to use) for the mineralocorticoids in aSAH [2]. On the contrary, the expert panel in the NCS changed their recommendation from the earlier guideline published in 2011 [5]. They state that “there is insufficient evidence to support mineralocorticoid administration to maintain normal

serum sodium concentration and/or even fluid balance or to improve functional outcome”. Lack of clear consensus on this issue can possibly affect the protocolized treatment of the patients.

Another important consideration in management of these patients is deep vein thrombosis, of which the incidence varies between 4 and 24% [2]. The 2011 NCS recommendations addressed the deep vein thrombosis prophylaxis in detail and recommended the use of unfractionated heparin after 24 h of securing the ruptured aneurysm [5]. AHA/ASA 2023 guidelines recommend starting pharmacological or mechanical venous thromboembolism prophylaxis in patients with secured aneurysm, however, the optimum timing of initiation and agent to be used is not discussed [2]. On the other hand, this fails to be mentioned in the recent 2023 guidelines given by NCS, as the panel decided not to cover topics pertaining to general neurocritical care [1]. AHA/ASA guidelines recommend completely against prophylactic hemodynamic augmentation because it can cause harm, although it may be reasonable in patients with DCI [2]. In patients with aSAH at risk of DCI, NCS guidelines state that there are insufficient quality data to recommend for or against blood pressure and cardiac output augmentation for the prevention and treatment of DCI. This is based on the lack of strong evidence to support it rather than the existence of appropriate studies that failed to show a benefit [1]. The authors have emphasized the importance of tailoring hemodynamic augmentation to the patient’s individual hemodynamic profile [1].

To conclude, the heterogeneity of existing evidence leaves many questions unanswered. Still, these guidelines best pave the way and illuminate many controversies in the light of the current evidence. This calls for the formulation of working committee that can religiously work in dedicated domains and provide good quality trials to help formulate clear recommendations.

*Correspondence: charushrikul@gmail.com
Department of Neuroanaesthesiology and Critical Care, All India Institute of Medical Sciences (A.I.I.M.S.), New Delhi 110029, India

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