Comprehensive Management of Ischemic Stroke Based on the Concept of Ischemic Penumbra

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Abstract

Stroke is a cause of mortality and morbidity of immense magnitude, rating second only to cancer in the developing world. Humungous advances in the understanding of the pathophysiology and subtypes have resulted in paradigm shifts in approach to management. With the burgeoning stroke burden on the society it is imperative to keep pace with these advances. Treating strokes based on the concept of identifying and quantifying the critically perfused brain tissue called the "ischemic penumbra" by a rapidly available radiological marker have led to radical changes in the attitude amongst clinicians from being nihilistic to being aggressive and optimistic. The paper delineates these emerging concepts and summarizes the limited experience with the hyperacute thrombolysis of acute ischemic stroke patients in Indian setting.