IS AGGRESSIVE LOWERING OF BP IN ACUTE ICH BENEFICIAL: NO

Victor Oliveira

Professor of Neurology at Lisbon Faculty of Medicine, Stroke Neurologist at Hospital Santa Maria – Lisboa, Portugal

Chronic elevated blood pressure is a major risk factor for stroke and should be actively controlled according to guidelines. Management of blood pressure in the acute phase of an ischemic stroke is also well established in guidelines. Although, hemorrhagic stroke is matter of dispute. Elevated blood pressure in the acute phase (systolic >140 mmHg) is a common finding. Several mechanisms are potentially involved mainly autonomic dysregulation and effect of intracranial pressure, especially in large lesions being more evident in patients with pre-existing hypertension but also stress of hospitalization, pain, anxiety and discomfort play a role.

Contrary to ischemic stroke where, in cerebral hemorrhage major concerns exist in its management. It is known that high blood pressure is deleterious but sharp reductions are also dangerous and predicts death and dependency, mainly in ischemia but also in hemorrhage.

A rational exists correlating early lowering of blood pressure and reduction of hematoma expansion. Although no clinical beneficial correlation has been identified do far.

It is well known the association of high systolic pressure in particular settings such risk of hemorrhage secondary to thrombolysis.

Because several mechanisms seem to be involved and no sufficient understanding are available one must be cautious in the acute management of high blood pressure of intracranial hematomas.

A more thoughtful approach seems to be an individual evaluation taking into account the initial blood pressure level, presumed cause, age and intracranial pressure.

Some guidelines suggest reduction in systolic blood pressure for intracranial hemorrhage for values > 180 mmHg to a target of 160 mmHg, although large range of uncertainty is admitted since many individual factors are present being intracranial pressure one of the most important and insufficient knowledge exist about how to deal with them

So it is questionable the benefit of acutely reducing blood pressure except in well-defined cases such as the risk of encephalopathy and post- thrombolysis in other cases, therapy should be mainly conservative.

Ref.

Suli Xiomara, Fuentes Patarroyo and Craig Anderson: Blood pressure lowering in acute phase of stroke. Ther Adv Chronic Did 2012; 3 (4): 163-171

Feldstein CA; Early treatment of hypertension in acute ischemic and intracerebral hemorrhagic stroke: progresses achieved challenges and perspectives. J Am Soc Hypertens March 2014; 8 (3): 192-202

Spence JD: New Treatment Options for hypertension during acute ischemic and hemorrhagic stroke. Cardiovasc Med. 2007; 9 (3): 242-6