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Editorial Note on: A systematic review of the evidence supporting a role for vasopressor support in acute SCI

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Five thousand years ago, Egyptian physicians described their observations of a subject with spinal cord injury (SCI) and for the first time documented the possible presence of neurogenic shock: ‘...he has become pale and developed severe weakness...’ (Edwin Smith Papyrus; circa 1650/1550 BC). The review by Ploumis and colleagues published in this issue of *Spinal Cord* includes a systematic evaluation of the literature and explores our present knowledge and practice of management of low arterial blood pressure (BP) that is commonly observed following SCI as a result of neurogenic shock (arterial BP below 90 mm Hg).¹

We are now well aware that injury to the spinal cord damages not only motor and sensory pathways but also the descending pathways that are involved in autonomic control.^{2,3} In particular, the loss of descending tonic sympathetic control appears to be a major cause of the cardiovascular instability during the acute post-traumatic stage.⁴ Low arterial BP and persistent bradycardia are common features of neurogenic shock that occurs after SCI. The profound hypotension commonly observed following SCI is in itself a life-threatening condition. In addition, hypotension may contribute to ischemia of the already compromised spinal cord, and is thus a possible factor in the cascade of secondary mechanisms that are involved in further damage of fragile neural tissue.⁵

At the present time of significant interest in clinical interventions and various possible treatment strategies following SCI, we have to be aware of possible ramifications of the outcome of unstable BP in these individuals. A recent

analysis of the data from the Sygen trial showed that hemodynamic parameters varied significantly with the severity of cervical SCI, and over time (in the same individuals) during evaluation of patients before randomization.⁶ Although presently we do not have a consensus on management of hemodynamic parameters immediately after SCI, this issue will likely have to be addressed in future investigations and in design of clinical trials.

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