

## LETTER TO THE EDITOR

# Physical therapy versus heparin for prevention of deep venous thrombosis

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We have read with interest the article by Agarwal *et al.*<sup>1</sup> and the letter by Frisbie.<sup>2</sup> They both have highlighted a very important and largely neglected aspect in the prevention of deep vein thrombosis (DVT) in spinal cord injury (SCI) patients, that is, the role of physical therapy. Agarwal *et al.* have presented more scientific evidence against the routine use of pharmacological thromboprophylaxis in resource-poor South Asian countries, which cannot be arranged in many instances because of the cost issues.

We would like to refer to our prospective study on prevalence of DVT in a cohort of 187 earthquake 2005 survivors with SCI.<sup>3</sup> We primarily relied on clinical suspicion and carried out duplex scan only in suspected cases. Only nine cases (4.8%) had confirmed DVT on duplex scan. This was despite the fact that mechanical and pharmacological thromboprophylaxis was not available to most of the patients. One of the possible explanations that we considered was thrice daily range of motion exercise of the lower limbs along with massage of the paralyzed extremities. This was made possible because of availability of an adequate number of attendants and volunteers. This is a very important suggestion that needs to be revisited in the light of the new scientific evidence presented by Agarwal and Frisbie, although it is not meant to downplay the established role of heparin in the prophylaxis of DVT.

Experience has shown that disasters, especially earthquakes, result in a large number of SCI patients.<sup>4</sup> These disasters overwhelm the healthcare resources and many of them happen in resource-poor developing countries. Many of these SCI patients are neglected and mismanaged because of multiple reasons (delayed evacuations, priority given to bleeding wounds, poor assessment techniques, non-availability of dedicated SCI centres).<sup>5</sup> Many a times it is not possible to provide adequate mechanical and pharmacological thromboprophylaxis to all of them (financial constraints, lack of storage facilities for heparins or simply an oversight). In such situations, the availability of adequate number of

care givers and volunteers in resource-poor countries, such as Pakistan, is invaluable. The regular range of motion exercises and compression massage of paralyzed extremities is a useful DVT prevention intervention (and even alternative, where no other option is available). It is also cost effective and can be carried out by anybody after a demonstration by a physical therapist. Keeping in view the increasing frequencies of natural disasters around the globe, it is important that this mode of DVT prevention be studied in detail, preferably in a multicenter randomized controlled trial comparing various forms of mechanical and pharmacological DVT prophylaxis and its economic implications. ISCoS can take the lead and make a difference in the SCI management in disasters in future.

### Conflict of interest

The authors declare no conflict of interest.

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