

## REFERENCES

1. Ramprasad M, Alias J, Raghuvver AK. Effect of backpack weight on postural angles in preadolescent children. *Indian Pediatr* 2010; 47: 575-580.
2. Grimmer K, Dansie B, Milanse S, Ubon P, Patricia T. Adolescent standing postural response to backpack loads: A randomized controlled experimental study. *BMC Musculoskeletal Disorders* 2002; 3: 10.
3. Brackley HM, Stevenson JM. Are children's backpack weight limits enough? A critical review of the relevant literature. *Spine* 2004; 29: 2184-2190.
4. Lindstrom-Hazel D. The backpack problem is evident but the solution is less obvious. *Work* 2009; 32: 329-338.

## Reply

We express thanks for the special interest and the questions raised pertaining to our article. With a cross-sectional design, our study explored the relationship between putative cause and effect i.e., backpack weight and postural angles in conveniently selected population. The population was stratified, excluded for larger measurement variability and represented homo-genous postural stability for a complex functional task (functional reach) than simple loading task measured in our study set-up. This reduces the impact of anthropometric confounding factors such as subcutaneous fat and height and their influence on postural angles in present study. Moreover good precision obtained in measured postural angles dictates good reproducibility with a valid ImageTool for the measurements taken.

To put clearly, data only on backpack weight and postural angles would not allow the role of duration of the carriage, predicting morbidity, or of other causes, to be explored.

Studies have reported that heavier backpack carriage in school children associated with fatigue symptoms(1), dorsal and low back pain(2), significant increase in disc compression and lumbar curvature(3), unable to recover from backpack

induced lumbar lordosis following the removal of the backpack load(4), shoulder, neck and back pain and combination of bodily pain(5). Contrary to above findings, studies have also reported no independent relationship between backpack use and back pain(6), and active form of carrying backpack may decrease the odds of getting neck and back pain(7). Some authors have suggested regular optimal spinal backpack loading for healthier back and they cautioned back pain in children should be viewed from a biopsychosocial behavioral model rather than pure mechanical model similar to adult back pain(8,9).

Various factors such as physical, mechanical, psychological, social, environmental, ergonomic, socioeconomic, anthropometric and demographic characteristics are need to be examined before predicting backpack related morbidity in this population.

Although more studies are needed to explore to find a causal link between backpack use and back and neck pain due to heavier backpack carriage, the major unanimous concern is an urgent need to conduct longitudinal and prospective studies so that various confounding factors associated with nonspecific low back pain in children can be explored.

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## REFERENCES

1. Kellis E, Emmanouilidou M. The effects of age and gender on the weight and use of schoolbags. *Pediatr Phys Ther* 2010; 22: 17-25.
2. Korovessis P, Koureas G, Papazisis Z. Correlation between backpack weight and way of carrying, sagittal and frontal spinal curvatures, athletic activity, and dorsal and low back pain in schoolchildren and adolescents. *J Spinal Disord Tech* 2004; 17: 33-40.
3. Neuschwander TB, Cutrone J, Macias BR, Cutrone S, Murthy G, Chambers H, *et al.* The effect of backpacks on the lumbar spine in children: a standing magnetic resonance imaging study. *Spine* 2010; 35: 83-88.
4. Negrini S, Negrini A. Postural effects of symmetrical and asymmetrical loads on the spines

- of schoolchildren. *Scoliosis* 2007; 2: 8.
5. Puckree T, Silal SP, Lin J. School bag carriage and pain in school children. *Disabil Rehabil* 2004; 26: 54-59.
  6. Irene AY, Andrew JH, Karen SY. The association between backpack weight and low back pain in children. *J Back Musculoskelet Rehabil* 2006; 1: 25-33.
  7. Haselgrove C, Straker L, Smith A, Sullivan OP, Perry M, Sloan N. Perceived school bag load, duration of carriage, and method of transport to school are associated with spinal pain in adolescents: an observational study. *Aust J Physiother* 2008; 54: 193-200.
  8. Reneman MF, Poels BJ, Geertzen JH, Dijkstra PU. Back pain and backpacks in children: biomedical or biopsychosocial model? *Disabil Rehabil* 2006; 28: 1293-1297.
  9. Lindstrom-Hazel D. The backpack problem is evident but the solution is less obvious. *Work* 2009; 32: 329-338.

## Anti Snake Venom in Neonate with Snakebite

It was interesting to read the case report of a neonate with snakebite(1). Attention of the authors is drawn towards an editorial published in *Indian Pediatrics* on the management of Snakebite: The National Protocol";(2). We must adhere to the National protocol irrespective of the age of the child. In the case reported the child probably needed less than half of the ASV administered, and airway management. The calculated dose of ASV is to be administered over hour. Mechanical ventilation played a bigger role than ASV in the good outcome of the case reported. Once snake venom is bound to neuromuscular junction it cannot be detached by ASV. ASV only neutralizes the circulating venom. The child in most likelihood suffered a krait bite (night time bite) and its venom being presynaptic was even less likely to be reversed by ASV as the presynaptic vesicles once destroyed take 3-5 days to regenerate. It would be prudent to adhere to National protocols, so as to conserve a scarce resource like ASV.

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### REFERENCES

1. Jindal G, Mahajan V, Parmar VR. Anti snake

venom in a neonate with snakebite. *Indian Pediatr* 2010; 47: 349-350.

2. Simpson ID. The pediatric management of snakebite: The national protocol. *Indian Pediatr* 2007; 44: 173-175.

## Reply

We agree with the comments made by Devgan, *et al.* regarding use of National protocol for management of snake bite(1). We have some points to offer. Firstly, there is lack of literature regarding management of neonatal snake bite. The dose of ASV to be administered in such cases is open to further research. Secondly, we were guided a good clinical response to ASV beyond 25 vials. Though supportive therapy in the form of ventilatory support and management of shock formed the mainstay of therapy, it is difficult to postulate that response was attributable to these alone and not ASV.

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### REFERENCES

1. Simpson ID. The pediatric management of snakebite: the national protocol. *Indian Pediatr* 2007; 44: 173-176.

*No further correspondence regarding this article would be entertained.*

**Editor-in-Chief**