# Investigating Conservative Therapy of Cervical Radiculopathy by a Delphi Technique

### Jian Li, Wen-Yi Zhu, Lei Zang, Yong Hai, Peng Du, Ning Fan, Yu Zhou, Li-Kun An

Department of Orthopedics, Beijing Chao Yang Hospital, Capital Medical University, Beijing 100020, China

To the Editor: Cervical radiculopathy (CR) is a common problem with an episodic course that affects a large proportion of the population.<sup>[1]</sup> The review indicated that nonoperative treatment is the main course. However, there is little high-quality evidence on the nonoperative therapy for CR. The purpose of this conservative therapy was built up to serve for the clinical practice. Our research team adopt a Delphi technique.<sup>[2]</sup> First, we randomly selected an expert panel composed 22 spine surgeons, 3 physiotherapist, and 3 pain management doctors from the medical experts in China. Second, using the Delphi process and iterative rounds, agreement ≥80% was considered consensus. Repeat voting for consensus was performed. Third, we put forward to the following conclusions: (1) Nonoperative treatment is the appropriate initial approach for most patients; (2) a short period (1 week) of immobilization in a cervical collar may relieve radicular pain; (3) typically, eight to 12 lb of traction is applied at an angle of approximately 24° of flexion for 15-20-min intervals should be provide to patient in hospital;<sup>[3]</sup> (4) a short period (3 days) of using steroid and dehydrating agents should be provide, according to the patient's condition; (5) patients are able to use interventional treatment (translaminar and transforaminal epidural injection or selective nerve root block) to relieve acute radicular pain; (6) as the pain improves, a gradual, isometric strengthening program may be initiated with progression to active range-of-motion and resistive exercises as tolerated; (7) patients should routinely receive nonsteroidal anti-inflammatory drugs (NSAIDs); (8) as breakthrough supplements to NSAIDs or in patients who cannot tolerate NSAIDs, opiate should be used; (9) patients should routinely receive relaxants; (10) patients should routinely receive physiotherapy such as heat and electrical nerve stimulation; (11) patients should receive neurotrophic drugs; (12) as supplement of CR therapy, Chinese herbal medicine about promoting blood circulation for removing blood stasis should be selected; (13) patients should receive tramadol (Ultram) to alleviate chronic neuropathic pain; (14) patients should considerate surgical intervention if there is intractable radicular symptoms unresponsive to nonoperative management over an 8 week period;<sup>[4]</sup> (15) patients

Access this article online	
Quick Response Code:	Website: www.cmj.org
	<b>DOI:</b> 10.4103/0366-6999.168082

have the recurrent pain of neck and shoulders, or the recurrent pain and numbness of upper limb more than 6 months, which seriously affect the patients' work and lives and aggravate recently; (16) patients have obvious strings pain and numbness of upper limb accompanied by one side muscle atrophy and decreased muscle strength, whose imaging examination showed cervical vertebral disc herniation, or osteophyte formation of Luschka joint compress the dural sac, or the section of the lesion is significantly instability. These could serve the clinical practice as a reference in the future. However, more studies are also needed to provide the high-quality evidence for these strategies.

# **Financial support and sponsorship**

This study was supported by a grant from the Major Science and Technology Project of Beijing (No.D101100049910009).

#### **Conflicts of interest**

There are no conflicts of interest.

## REFERENCES

- Onks CA, Billy G. Evaluation and treatment of cervical radiculopathy. Prim Care 2013;40:837-48, vii-viii.
- Hasson F, Keeney S, McKenna H. Research guidelines for the Delphi survey technique. J Adv Nurs 2000;32:1008-15.
- Fritz Et, Deydre S, Teyhen PT. Neck and arm pain: Mechanical traction and exercises prove an effective treatment. J Orthop Sports Phys Ther 2014;44:58.
- Alentado VJ, Lubelski D, Steinmetz MP, Benzel EC, Mroz TE. Optimal duration of conservative management prior to surgery for cervical and lumbar radiculopathy: A literature review. Global Spine J 2014;4:279-86.

Address for correspondence: Dr. Lei Zang, Department of Orthopedics, Beijing Chao Yang Hospital, Capital Medical University, Beijing 100020, China E-Mail: canglei@236.com

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

© 2015 Chinese Medical Journal | Produced by Wolters Kluwer - Medknow

**Received:** 09-06-2015 **Edited by:** Li-Min Chen **How to cite this article:** Li J, Zhu WY, Zang L, Hai Y, Du P, Fan N, Zhou Y, An LK. Investigating Conservative Therapy of Cervical Radiculopathy by a Delphi Technique. Chin Med J 2015;128:2976.