

3. To the Editor:

We described this test and published it in a paper entitled: A Simple Test to Confirm Correct Identification of the Epidural Space, authored by Margaret A. Wilson, M.D., Sheila Schwartzmann, M.D. FRCP, and Somayaji Ramamurthy, M.D. It was published in the *Journal of American Society of Regional Anesthesia*, Vol. 8, No. 4, pages 158 – 162, 1983. I have enclosed a copy of the publication.

The authors, Edward Carden, M.D. and Arti Ori, M.D. did not reference our article and have described the exact same test. In fact our test is superior in many ways. The test described by Dr. Carden and Dr. Ori requires that the fingertip be placed next to the needle. Our test on the other hand places the whole length of

the fingers on either side of the needle. By doing this, it covers the adjacent area of the needle tip when the needle is angled in a cephalad direction as we commonly do with many epidural techniques especially in the thoracic area. In addition, we measured and documented the pressure differences while performing the technique.

I would very much appreciate if you would make the appropriate correction and require your authors in the future to do a thorough literature search before accepting papers for publication.

Somayaji Ramamurthy, MD
Professor
The University of Texas Health Science Center
7703 Floyd Curl Drive
San Antonio, Texas 78229-3900

In Response:

We would like to thank Drs. Singh, Whitworth, and Ramamurthy for taking interest in our publication and responding.

First in response to Singh, as he has elegantly put, this technique is useful in all settings.

In response to Whitworth's long letter and multiple references, we appreciate the multiple issues he has brought up. We also agree that the BIP loss of resistance test needs confirmation. We are certainly hoping for someone else to replicate our findings and publish them to provide the validity. We are not recommending that fluoroscopy be abandoned. In situations where fluoroscopy is not available, this technique may be used specifically in non-interventional practices. We are aware of all the complications mentioned, failure of appropriate placement, and failure of drug flow, etc.

Finally, we would like to thank Ramamurthy et al and apologize for not referencing their earlier paper. Obviously, what we thought was an appropriate literature search (in fact, was appropriate) failed to unravel old articles. First, even though the idea is the same, there are subtle differences in the application of the basic principles involved. Second, Ramamurthy's letter to the editor and the enclosed responses gives both manuscripts and their principles appropriate exposure. As a result, perhaps many more physicians will use the test in whichever form they desire.

Third, after receiving Ramamurthy's letter, we went ahead and did another search for identification of epidural space articles. Even then, we did not find Ramamurthy et al's article. Following this, we searched for related articles of BIP test. There were 101 articles on PubMed, however, Ramamurthy's article did not appear. Following this, we searched for this publication and also the coauthor's publications, yet, this was not available on PubMed. Following this, we did a search on EMBASE. While we were unable to find it under a search for identification of epidural space or related articles under BIP test, we did find it under Ramamurthy's publications. The reasons why it was not available on PubMed is that the referenced journal was first indexed in 1989. However, the article was published in 1983.

Fourth, many inventions in interventional pain management have been related to simultaneous publications. As we are all aware, caudal epidural injections were reported in 1901 by three different authors. We are not aware of any arguments on this issue (1-3).

Finally, Dr. Ramamurthy requested that the authors in the future to do a thorough literature search before accepting papers for publication, which was done, yet it was not found as described above.

Fifth, the reviewers of the article were also not aware of this particular manuscript.

In summary, considering that the paper was pub-