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.

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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-

lished 23 years ago, is not available on PubMed and only available on EMBASE when we look at the author's individual publications, we do not believe that we have done anything wrong. However, we are happy to respond to the letter.

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Modification of the Curved Needle Technique Using a Proximal Bend

To The Editor:

The curved needle technique has been utilized by interventionalists for many years and remains the preferred technique among physicians performing interventional pain procedures. The physician utilizes axial and rotational movements of the needle to reach the target point employing incremental adjustments guided by the last image saved on the fluoroscopic monitor. The physician grabs the hub of the needle and exerts the desired maneuver. In order to visualize the position of the needle tip the physician relies on a notch or dot that may be difficult to view in needles with plastic hubs that may become obscured if there is any blood venous return. This wastes time and adds frustration.

The goal of modifying the curved needle technique is to create a visual marker to enable the interventionalist to easily and quickly recognize the orientation of the hub of the needle that correlates directly with the orientation of the distal curve. I have been able to achieve this goal by applying a proximal bend 180 degrees away from the distal curve and in the direction of the bevel just below the hub (Fig.1).

This simple modification not only enables the physician to save time by quickly identifing the orientation of the hub, but also provides a comfortable grip

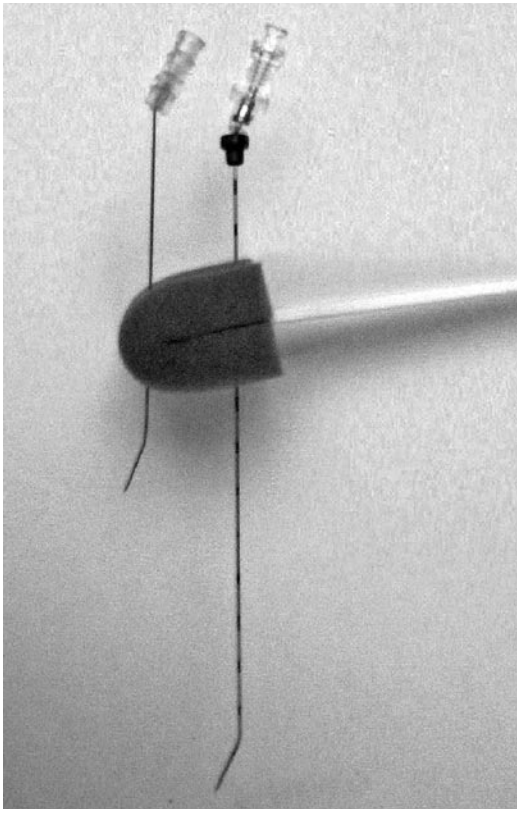

Fig. 1: *Proximal bend 180 degrees away from the distal curve.*