

## Letters to the Editor

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### Cardiac denervation

I would like to congratulate Dr. João Roberto Breda and all his staff for the remarkable study (Effect of ventral cardiac denervation on the incidence of atrial fibrillation after coronary artery bypass grafting – BJCVS/RBCCV 23.2).

The occurrence of atrial fibrillation after coronary artery bypass graft surgery suddenly increases the procedure morbidity, frequently increasing these patients' hospital stay.

Our experience with ventral cardiac denervation was not a wide one, less than 10 cases; it was based on Dr. Melo's observation, from Portugal, even before he publishes his study in 2004. At this time, we were excited to use the technique which were quite simple and consumed only a few minutes, as it was shown by Dr. Breda and his co-workers.

I have some doubts regarding the method.

- The first one originates from the real effectiveness of cardiac denervation. We know that the cardiac innervation is extensive and there comes my first question:

Do you think that this kind of denervation affect all nerves, especially those of the sympathetic chain? And what about the posterior nerve fibers?

- The second doubt is by which physiological way would denervation act? In other words, there are no other mechanisms which would lead to AF in these patients?

There is a study by Dr. Scherer, from Frankfurt, that evaluated whether peridural anesthesia could restrict the occurrence of postoperative AF (the result was negative!). Would you or your staff have some remarks to make about this issue?

Finally, our experience failed by not having our patients long enough on Holter monitoring. This also happened to you, once the AF diagnosis was based on clinical symptoms or detected by ECG performed once a day.

It would not be possible that in your study group this Holter monitoring and the patients' long-term follow-up could allow detecting more AF cases, which clearly appears and disappears without many symptoms? On the other hand, if the case study was larger, e.g., twice as many cases, could not these conclusions have been other?

To conclude, I would like to thank the organizing commission by the opportunity to discuss this study, and once more I want to congratulate the authors, especially by the honesty on the conclusions that many times are not the ones the researchers would like to get.

*Luís Alberto O. Dallan - São Paulo/SP-Brazil*

### Reply

At first, I would like to thank Prof. Luiz Alberto Dallan for reading the article and by his pertinent remarks. Our interest in this matter has also originated after reading the study by Melo et al who presented a result pro ventral cardiac denervation in the preservation of atrial fibrillation after coronary artery bypass graft surgery (non randomized, prospective study).

Regarding the questions presented, we can say:

1. Despite the role of the Autonomic Nervous System fibers in cardiac innervation, many doubts still remain as to the participation of each one of the chains involved (sympathetic and parasympathetic). Thus, the specimens obtained in our study started being referred to anatomicopathologic examination. A removal of fat tissue over 0.50 cm thickness was considered satisfactory.

2. In our study there was no evidence of the cardiac denervation effectiveness in preventing atrial fibrillation. The high incidence of this tachyarrhythmia remains as a challenge to be faced. Currently, in our hospital service, the major adopted measure is the use of beta-blocker drugs preoperatively. We have not used other procedures such as the aforementioned peridural block.

3. The small number of patients in our study has restrained the strength of conclusion of our study; could there have been an underreporting of atrial fibrillation due to monitoring difficulty, once telemetry, which is a method used in some other studies, was not available.

*João Roberto Breda – Santo André/SP-Brazil*