

# The development of chagasic megacolon requires severe denervation and the reduction in interstitial cells of Cajal number might be a contributing factor

Sheila Jorge Adad · Gisele Barbosa e Silva ·  
Alessandro Adad Jammal

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To the Editor:

In response to the considerations contained in the letter of Bassotti and Villanacci [1], we would like to emphasize that in our study [2] we identified a reduced number of interstitial cells of Cajal (ICC) in chagasic megacolon (CM), as had been previously reported in studies by Hagger et al. [3] and Geraldino et al. [4]. Hypotheses were raised trying to explain the discrepancy with the results published by Iantorno et al. [5]. Bassotti and Villanacci [1] claim that the hypotheses we proposed (inclusion of mast cells and heterogeneous distribution of ICC in different regions of the colon) are unfounded. We have no other explanations for the discrepancies between our study, which identified increasing numbers of intramuscular ICC only, and other studies [2–4], which found a reduction of ICC in all layers evaluated.

Bassotti and Villanacci [1] state that we did not distinguish between well-established colonic populations of ICC. However, we did describe in our paper [2] that we counted ICC at the level of the myenteric plexus (intermuscular space between circular and longitudinal muscle layers) and from ICC in circular muscle layer separately. We did not count ICC in the submucosa nor in longitudinal muscle layers.

However, we fully agree with Bassotti and Villanacci [1] that it is necessary to evaluate ICC and glial cells in

conjunction with the study of enteric neurons, as our findings support the hypothesis that the development of CM requires severe denervation and the reduction in ICC number is, in part, a consequence of denervation and that this might contribute to the pathophysiology of CM.

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S. J. Adad (✉) · G. B. e Silva  
Discipline of Special Pathology, Universidade Federal do  
Triângulo Mineiro (UFTM), Av. Getúlio Guaritá, 130,  
38025-440 Uberaba, Minas Gerais, Brazil  
e-mail: sheila.adad@gmail.com

A. A. Jammal  
Universidade de Uberaba (UNIUBE), Av. Nené Sabino, 1801,  
38055-500 Uberaba, Minas Gerais, Brazil