

Review of: "From Psychostasis to the Discovery of Cardiac Nerves: The Origins of the Modern Cardiac Neuromodulation Concept"

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Potential competing interests: No potential competing interests to declare.

The article entitled "From Psychostasis to the Discovery of Cardiac Nerves: The Origins of the Modern Cardiac Neuromodulation Concept", by Beatrice Paradiso, Haroldas Pauza Dainius, Clara Limback, Giulia Ottaviani, and Gaetano Thiene, proposes to provide scientific data on the regulation of cardiac contraction in different eras, starting with the ancient Egyptian period. The authors fall into the trap of drawing parallels that seem crude, but above all, are naively presented without caution when they should be arriving at the terms of analyses to deliver the authors' message on these analogies or homologies. Overall, the article is not at all analytical enough. It presents itself as a summary when it should be a polemical discussion.

The summary is presented as a list of unrelated discoveries and does not ask any question about the article's analyses, nor does it give any conclusions about the work. It should be completely rewritten.

The text should mention a reference to the ancient Egyptian belief in the heart as the seat of intelligence.

Generally speaking, authors present a conclusion as definitive before supporting it with a few arguments. Instead, authors should first pose a question and then try to answer it with their arguments. For example, instead of saying that the Egyptians developed an original theory of cardiovascular physiology, the authors should ask the question: Did the Egyptians have any knowledge of cardiovascular function? And then answer it.

Bardinet's conceptions should perhaps be put into perspective with the work of other authors.

The authors should warn the reader that the Egyptians had no clear concept of what an organ is. What, then, is the heart in an organic system of the human body?

The phrase "The third, finally, symbolized the center of thought, intelligence, and memory, responsible for collecting all information from the senses, anticipating the

concept of cardiac innervation" is premature at this stage of the article. We can't clearly understand the authors' opinion here. This sentence should be included at the end of the study, in a discussion and conclusion.

The authors should present cardiocentrism in the history of medicine at the very beginning of the article, with references.

Authors should cite other works dealing with cardiac regulation throughout history, and distinguish this from the classic history of the discovery of the nerves of the heart.

The history of heart regulation is generally too linear, descriptive, and clichéd. A history of science needs to group together themes and pose certain questions, indicating how authors might have answered them in different ways at different times, and establishing links between authors in historical analyses.

On Antonio Scarpa, authors should cite and discuss the articles by Manoim, Giotta Lucifero, Canzi, Garbarino, Mazzarello.

On Terni, authors should cite and discuss the articles by Thiene, Paradisio, Zanatta, Basso & Zampieri, and Macchi, Porzionato, Stecco & De Caro.

In general, the authors deny the existence of previous work on the questions posed, including their own.

The authors should clarify the context of Bichat's work.

Contemporary data on cardiac regulation should never be presented in complete isolation from the historical background. They should be analyzed in such a way as to show how modern data confirms or refutes certain old hypotheses, in order to evaluate the work of the historical part. Juxtaposing scientific data in the form of a catalog is no better than a Wikipedia article, and provides no food for thought.

In conclusion, this article contains the elements to be a good article both historically and scientifically, but the work to be done is too little.