

Peer Review

Review of: "Pioneering Spinal Anesthesia: A Historical Examination of Benedetto Schiassi's Landmark Work"

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Scientific Opinion

This article provides a well-documented historical analysis of Benedetto Schiassi's contributions to spinal anesthesia in Italy, emphasizing his refinements in dosage and patient positioning. The authors successfully position Schiassi's work within the broader global evolution of anesthetic techniques, comparing it to August Bier's earlier pioneering work in 1898. The historical narrative is compelling, supported by archival evidence and primary literature, which adds credibility to their claims.

The study is particularly valuable for historians of medicine and anesthesiologists interested in the development of loco-regional anesthesia. By outlining Schiassi's innovations, such as reducing cocaine dosage and using the prone position to mitigate side effects, the article sheds light on a crucial yet often overlooked figure in medical history. Furthermore, the comparison of historical and modern spinal anesthesia techniques provides a useful perspective on the field's progress.

However, while the article is rich in historical documentation, it lacks a critical discussion on the potential limitations of Schiassi's methods, particularly regarding patient outcomes beyond the single case presented. Additionally, it does not sufficiently address potential competing claims regarding the first use of spinal anesthesia in Italy, aside from referencing later surgeons who built upon Schiassi's work.

Methodological Review

Strengths:

1. Use of Archival and Primary Sources:

- The article effectively utilizes historical documents, including Schiassi's own publications, hospital records, and reports from contemporary surgeons (Bastianelli, Ceccherelli).

- The citations and direct translations of Schiassi's descriptions of his method add authenticity to the analysis.

2. Comparative Analysis with August Bier's Work:

- The discussion of Schiassi's modifications (lower cocaine dosage, prone positioning) in comparison to Bier's approach provides an insightful historical perspective.

- The inclusion of physiological rationale for these modifications strengthens the argument for Schiassi's contributions.

3. Clear Chronological Narrative:

- The article effectively traces the timeline from Bier's first use of spinal anesthesia in 1898 to Schiassi's documented case in 1899, then follows up with subsequent publications in the early 1900s.

- The use of historical context helps situate Schiassi's work within the broader evolution of anesthesia.

4. Reproducibility and Technical Description:

- The detailed description of the materials, dosages, and patient positioning used by Schiassi allows for a reconstruction of the method.

- The comparison table at the end (1899 vs. 2025 techniques) enhances the clarity of how spinal anesthesia has evolved.

Limitations and Areas for Improvement:

1. Limited Discussion on Clinical Outcomes and Risks:

- The article describes the single case of a 70-year-old patient undergoing leg amputation but does not explore whether Schiassi's modifications had long-term benefits or lower complication rates compared to Bier's approach.

- There is little discussion on whether these innovations were widely adopted in Italy at the time or faced resistance from the medical community.

2. Lack of Alternative Historical Perspectives:

- While the authors claim Schiassi was the first to perform spinal anesthesia in Italy, they do not critically evaluate whether other surgeons may have experimented with similar techniques but lacked

documentation.

- The authors rely on historical records available but could strengthen their argument by addressing potential counterclaims or gaps in documentation.

3. No Quantitative or Statistical Analysis:

- Since this is a historical study, statistical data is understandably limited. However, a broader analysis of early spinal anesthesia cases in Italy could provide context regarding mortality rates, complications, and adoption trends.

- The article could include a table summarizing early cases beyond Schiassi's initial report, comparing their outcomes.

4. Potential Bias in Interpretation:

- The article presents Schiassi's contribution as a major milestone but does not critically assess its immediate impact on surgical anesthesia practices.

- A discussion of how long it took for Schiassi's modifications to be recognized and incorporated into standard practice would add depth to the analysis.

Conclusions and Recommendations

Overall, the article provides a valuable historical contribution to the understanding of spinal anesthesia's evolution, highlighting Benedetto Schiassi's role in refining the technique. The research is well-supported with historical documentation and presents a compelling case for Schiassi's influence.

To improve its rigor, the article could benefit from:

- A more critical evaluation of alternative historical perspectives.
- A discussion of clinical outcomes beyond the single case described.
- A broader contextual analysis of spinal anesthesia's adoption in Italy following Schiassi's work.
- Inclusion of quantitative data (if available) regarding early spinal anesthesia outcomes.

These additions would enhance the scientific credibility and methodological robustness of the study, making it a more comprehensive contribution to medical history.

Declarations

Potential competing interests: No potential competing interests to declare.