

# Review of: "Deep Learning in Medical Image Registration: Introduction and Survey"

Yan Qiang<sup>1</sup>

<sup>1</sup> Taiyuan University of Technology

**Potential competing interests:** No potential competing interests to declare.

1.The author's writing ideas are clear and progressive, and the concept of image registration and some research methods are clearly explained. However, the author can briefly introduce some applications of image registration in different research backgrounds or specific scenes, and what is the quality evaluation standard of image registration in these applications. Then it will be reasonable and hierarchical to introduce the recent research papers.

2.The papers collected by the author are mainly in 2021 and 2022, so the time span of collecting papers can be appropriately increased, which is convenient for the later chapters to study the development process of MIR and better analyze the future development direction.

3.In section 6.3, the author expounds the development direction and course of MIR algorithm, but simply explains the update reasons of these algorithms, which can't intuitively reflect the iterative process of algorithm update. The author can list some typical improved algorithms or articles, and compare the table or experimental data to clarify the update reasons and the advantages and disadvantages of the algorithms before and after the update.

4.The author simply introduced some methods or applications of MIR, but did not put forward the difficulties in the development of MIR in some background or in a certain field, and his own views on these issues.

5.At the end of the summary, the author explained a lot about some applications of image registration in medicine now, which is a summary of the existing technology and lacks some prospects for future medical or other fields.

Major revision