Review of: "Methodological Approach to Accuracy Assessment in CAD-CAM Mandibular Reconstruction"

Gerold Unterhumer[1], Godoberto Guevara Rojas[1]

1 Department Health Sciences, Radiological Technology, FH Campus Wien, Vienna, Austria

Potential competing interests: No potential competing interests to declare.

This case study serves as the foundation for a novel approach to accuracy measurement, designated as GPL. The method itself and the process flow are delineated in detail.

While the described workflow is comprehensible, it is not generally transferable to other pathologies. The workflow and utilisation of GPL are presented on the basis of a single case study. It would be beneficial to document the selection of the three intra-mandibular geometric features to define the GPL-RS with sources or to justify it in a more comprehensible manner.

The location of the deviations, as described in Table 1, does not provide insight into their clinical relevance. It may be beneficial to consider the identified deviations as a potential avenue for quality assurance.

The specific CT scan parameters (e.g., slice thickness, pitch, Kernel, FOV) used in the case study have not been provided; however, we believe that these are crucial for ensuring the quality of the 3D reconstructions.

The capacity to quantify the accuracy of PSI without examiner variability is of significant importance. The automation of positioning represents a crucial step in ensuring the reproducibility of results. The quantification of the deviations is essential for the documentation of the results and, at the same time, allows for the monitoring of the positioning and geometry of the implants. However, it may prove challenging to transform global deviation numbers into results that reflect aesthetic, functional, and surgical success. The clinical relevance of the correlations between the roto-translational matrices remains to be investigated. The present study offers insights into quality assurance and contributes to the scientific field.