Reviewer’s report

Title: Development, Validation and Application of a 3D printed model depicting Adenoid Hypertrophy in comparison to a Nasoendoscopy

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Reviewer: Thomas Stamm

Reviewer's report:

The present manuscript describes a cross-sectional study to develop and validate 3D representations, including 3D prints of the nasopharynx. The study sample consisted of 14 cbct scans which represented different grads of nasopharyngeal obstruction. Participants graded the level of obstruction according to four grades.

The authors found an almost perfect agreement for possible agreements in adenoid grading. A low sensitivity and high specificity was found for the lumen in 2D representations but both high sensitivity and specificity in adenoid mass representations.

Despite the limitations of the study the authors could demonstrate the usefulness of 3D technology in the diagnostic and management of adenoid hypertrophy.

Cbct in children must have strong indications. It remains to be hoped that the positive results of this study do not add to an increase in dental cbct procedures in children with unclear symptoms. Early referral to an ENT or OHNS should be the main objective and to leave the invasive diagnostic methods to the specialists. It would helpful to highlight this in the final manuscript.

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