

OBSERVATION OF SOFT TISSUE AND VERTICAL DIMENSION CHANGES USING 3dMD



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PURPOSE

The aim of the present study was to analyze the accuracy and validity of 3dMD predict the position of the soft tissues of a complete denture patient three dimensionally.

A 62-year-old female patient was referred to the clinic for renewal of her 10-year used denture. The extraoral examination revealed that the vertical dimension was reduced.

Totally 15 photos were taken by a 3D imaging device (3dMD Ltd., London, UK) that shots every pictures in 1.5 msec. The patient was positioned in rest position, centric position both with old dentures and new dentures.

MATERIALS & METHODS

According to obtained the data the changes before and after treatment were 2.68mm for labiale superius, 2.92mm for labiale inferius, 1.99mm for subnasal, 2.89mm for pogonion, 1.98mm for pronasal and 2.96mm for sulcus infeior.

Vertical dimension of rest position was 63mm, centric relation position with old dentures was 5qmm and centric relation position with new dentures was 57mm. Linear changes and discrepancies of soft tissues were evaluated by 3dMD software. And also 3D changes and deviations were calculated by using Geomagic Control. The color coded map of deviations were reported.

Points moved forward positions after treatment. The area of the upper and lower lips also calculated.

The results were 388.9569mm² and 442.6625mm² before treatment and 435.5113mm² and 529.8522mm² after treatment respectively. The area of the lips was increased.

3D imaging produces clinically acceptable three-dimensional soft tissue predictions and alternative method in determining vertical dimensions in complete denture patients. tissues.

RESULTS

CONCLUSION

