



Off-label use of IOS: a new frontier in oral medicine

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INTRODUCTION

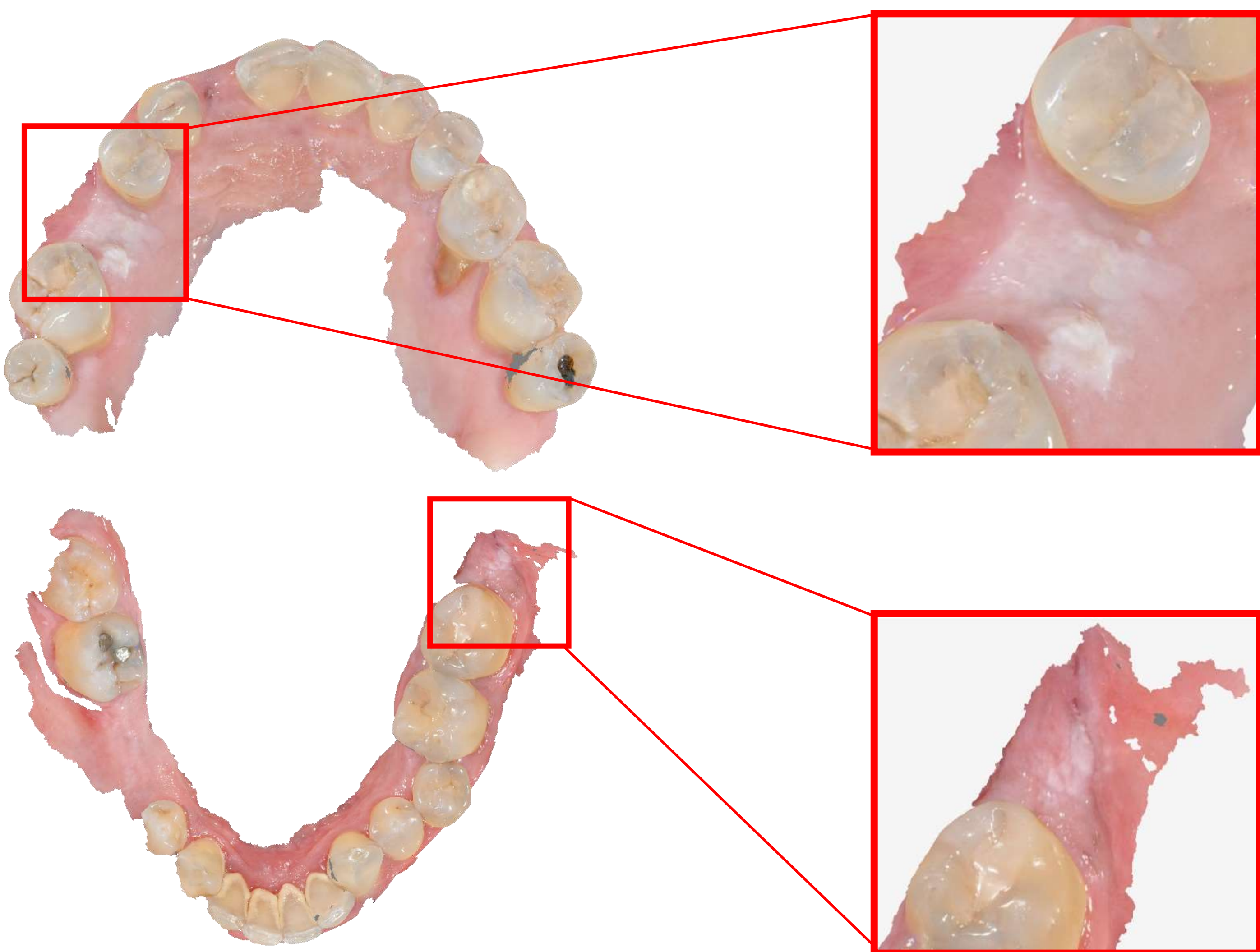
The last few decades in dentistry have been marked by rapid development in intraoral optical scanners (IOS). These devices, widely used in prosthetics and orthodontics, offer the possibility of taking precise impressions of hard and soft tissues. These new tools allow impressions to be taken more quickly and comfortably for the patient than traditional methods, while also facilitating excellent communication between dental laboratories and the exchange of opinions between colleagues.

Our study aims to confirm the possibility of scanning gingival and palatal lesions and to evaluate any quantitative and visual changes over time.

METHODS

Thirty patients with lesions of the gingival and palatal mucosa were enrolled.

The scans were performed with the IOS Runyes 3DS Plus (China) and observed with Runyes software.



RESULTS

Thirty oral gingival and palatal lesions were scanned in patients attending the first visit at the oral medicine unit. The lesions detected were: Leukoplakia (17 patients), Auto-immune disease (6 patients), Epulis (4 patients), Papilloma (3 patients).

CONCLUSION

IOS offers many implications for future research and clinical practice:

- 1) IOS in oral medicine can be used to examine the extent, size, margins, texture, colors, and quantitative changes in the mucosa of the gums and palate.
- 2) IOS are very useful tools for clinical documentation and for monitoring the evolution of the lesion over time, aligning the scans obtained, comparing them with previous ones, and submitting them to AI software for evaluation.
- 3) Compared to clinical photography, a two-dimensional image currently considered the gold standard, three-dimensional scanning allows every detail to be viewed in a single image. Furthermore, this method allows for more accurate images to be obtained, as there is a reduction in operator-dependent variability due to different angles and lighting conditions..

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