



Letter to the editor

The applicability of fluorescence guided detection to epithelial dysplasia and oral cancer



Sir,

We read the paper by Amirchaghmaghi et al. [1] recently published in this journal with great interest. First, we would like to congratulate the authors for performing this well-designed research, and present important results to the scientific community regarding the potential of fluorescence visualization appliance on the early detection of oral cancer and high-risk lesions. However, we would like to point some important issues regarding this theme which we believe to deserve more deliberation.

The tissue autofluorescence visualization was developed with the purpose of enhancing the early detection of oral cancer and dysplastic lesions [2]. Amirchaghmaghi et al. states *the limitations of this method concluding that it cannot be used in the screening of dysplastic or malignant lesions in primary health care centers* and that *due to the high probability of false positive results, it may lead to high referral rates or unnecessary biopsies*. Since the tissue autofluorescence visualization was developed, huge efforts were given to insert this method on the population screening. Indeed, Farah et al. [3] found that this method did not demonstrate high diagnosis values to detect oral epithelial dysplasia. However, using fluorescence visualization as an adjunctive method, Laronde et al. [4] observed that the detection of oral lesions was significantly enhanced.

In our experience, we analyzed the possibility of inserting the fluorescence visualization on the population screening, starting by evaluating if unskilled examiners could use a fluorescence device with efficiency [5]. From the positive results obtained with this pilot study, we are currently inserting the fluorescence visualization on the oral examination performed by dental surgeons of primary care centers. From this, we have enthusiastically observed that although many benign lesions have been forwarded for diagnosis with specialist in oral medicine, the rate of oral potentially malignant disorders and oral lesions more prone to be dysplastic have increased significantly.

From this perspective, we agree that the fluorescence visualization has some limitations, especially regarding its use in primary care centers by unskilled professionals. However, the insertion of this method in population screening have been improved along the years. Thus, we believe that Amirchaghmaghi et al. [1] drew a too much emphatic conclusion regarding the value of fluorescence visualization. This method should be seen as an adjunct method for enhancing the oral examination and improve the early detection of oral high-risk lesions, and not as a diagnostic method. The amount of information available in scientific literature enables and energize the performance of further research to improve the applicability of fluorescence visualization in population screening.

Conflict of interest

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References

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