Gingival exophytic lesions – A proposed diagnostic algorithm to approach the clinical enigma

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Abstract

A diagnostic algorithm is a step-by-step method of diagnosis using a combination of symptoms or signs to identify pathology wherein even various different investigations can also be applied. As solitary gingival exophytic lesions are frequently encountered and commonly misdiagnosed; so well organized diagnostic algorithm is imperative to reach correct diagnosis timely. The purpose of this brief communication is to provide such diagnostic algorithm wherein valuable points such as lesional clinical presentation as well as their microscopic points are incorporated. Such an algorithm is illustrative and can be easily used by dental practitioners in their regular routine dental practice.

Keywords: Diagnosis, exophytic, gingival, solitary

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INTRODUCTION

Solitary gingival exophytic lesions account for 5.6% of the reported oral lesions,[1] and this group of lesions present itself as a clinical enigma to the diagnostician. It comprises a constellation of heterogeneous lesions associated with varied origin patterns and pathogenesis whilst bearing homogeneous clinical presentation. Thus, diagnosis of such lesions remains a challenge for both a novice in clinical practice and a skilled dentist. These lesions are associated with inconsistent prognostic outcomes and behaviours, leading to immense pressure on the clinician for arriving at a precise diagnosis, thus rightfully referred to as a diagnostic dilemma.

Interestingly, to the best of our knowledge, only three papers have attempted to present a clinical decision tree to arrive at a correct diagnosis utilising a structured and planned approach for gingival swellings.[2-4] Subramanyam RV emphasises the significance of a proper diagnostic algorithm for a diagnosis by clinician or dentist and condemns the reliability of intuition and guesswork.[2] He proposed the steps to diagnose any oral lesion, including collection, classification, comparison, clinical impression, confirmation, and conclusion.[2] Agrawal[3] discussed gingival swellings and their differential diagnosis to present a clinical algorithm encompassing all gingival enlargements, both isolated and generalised. Mortazavi H et al.[4] presented a decision tree for oral exophytic lesions according to their clinical features.

Solitary exophytic lesions can be categorised according to their duration and clinical appearance.[5] This communication adds further critical information on the topic proposing a logical and clinically practical diagnostic decision tree or

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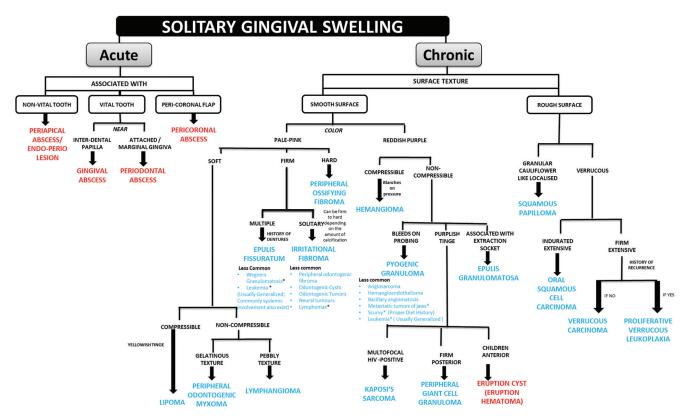
Figure 1: Flowchart of solitary gingival exophytic growth. Final diagnosis wherein histopathology is mandatory is written in blue-coloured text. The lesions which are written in red-coloured text in those final diagnoses are achieved by clinico-radiographic assessment. (Note: The lesions which are marked with star (*) will require other investigations such as thorough systemic check-up)

algorithm for diagnosing isolated gingival swellings using a comprehensive finding collected during clinical history and examination [Figure 1].

Accurate identification and categorisation of lesions as benign or malignant or of developmental origin are pivotal for clinicians and patients. Understanding the nature of the lesion is crucial for informed decision-making. The proposed algorithm provides valuable insights for clinicians to recognise distinct clinical presentations before biopsy, enhancing diagnostic accuracy.

Undoubtedly, biopsies are indispensable for definitive diagnoses, with subsequent histopathological examinations playing a central role in the algorithm.[2] By integrating histopathological analysis with comprehensive clinical evaluations, the algorithm facilitates the narrowing down of potential diagnosis. This streamlined approach will enable clinicians to opt for an appropriate treatment plan by ensuring accurate identification of pathology. Additionally, by following such an algorithm, consistency in diagnosis

will help in standardisation, monitoring, and assessing the outcome/recurrence rate of solitary gingival exophytic lesions.

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Conflicts of interest
There are no conflicts of interest.

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