

Clinical utility of dermoscopy on diagnosing pigmented papillary fungiform papillae of the tongue: A systematic review

Meircurius Surboyo¹, Arvind Babu Rajendra Santosh², Ninuk Hariyani¹, Diah Ernawati¹, and Pamela Cecilia¹

¹Universitas Airlangga

²The University of the West Indies

February 24, 2021

Abstract

Importance: The practice of dermoscopy in dental and oral examination is low due to less popularity and not well established of the diagnostic tool in dental practice. The dermoscopy examination provides a specific dermoscopes details for pigmented papillary fungiform of tongue (PFTT) as cobblestone appearance and rose-petal appearance. With this dermoscopes details serves as a non-invasive diagnostic tool and prevents biopsy procedure. **Objective:** We performed a systematic review to evaluate the published papers related to pigmented papillary fungiform on the tongue, aiming to understand the diagnostic role of dermoscopy examination in pigmented papillary fungiform. **Evidence review:** A PubMed, Google scholar and Embase databases were searched for the PFTT studies and case reports published during the period 1974-2020. Initial result was 136 studies. Final exclusion of 27 articles was made based on the following factors: reports with no clinical images, studies that did not confirm the diagnosis of PPFT and studies that did not use the dermoscopes details. Finally, seventeen studies with nineteen cases, reported of pigmented papillary fungiform of the tongue. **Finding:** The diagnosis of tongue papillary fungiform can be determined by dermoscopy examination. Six studies (consist six cases) reported the dermoscopy and histopathology diagnosis of pigmented papillary fungiform, eleven studies (consist thirteen cases) reported only the dermoscopy. The dermoscopy examination presented cobblestone appearance is 47.37% and rose petal appearance is 52.63%. The comparison study by histopathology diagnosis was done, revealed no specific appearances. **Conclusions and relevance:** The clinical appearance and dermoscopy is the key for diagnosis of the papillary fungiform on the tongue. Further research is needed for determining the etiology and predisposing factor in papillary fungiform so that the possibility of developing this condition can be predicted and proper treatment could be performed.