ABSTRACT

BACKGROUND: Although most mucosal pigmented macules are benign, it can be clinically challenging to rule out an early melanoma. Reflectance confocal microscopy (RCM) is a non-invasive imaging technique useful to discriminate between benign and malignant skin lesions. **OBJECTIVES:** To describe the confocal aspects of benign and malignant mucosal pigmented macules with histopathological correlations. **METHODS:** We retrospectively reviewed the confocal images of 56 labial or genital pigmented macules including 10 macular melanoma. According to the retrospective nature of the study, we evaluated the recorded images chosen by the physicians that performed the RCM examination for each case. **RESULTS:** In benign macules, the most frequently observed pattern was a ringed pattern characterized by round or polycyclic papillae, with a hyperreflective basal layer; another pattern was characterized by sparse bright dendritic cells in the basal layer, the basal epithelial cells being otherwise usually less reflective. The presence of roundish cells, a high density dendritic cells with atypias, intraepithelial bright cells were clues in favour of malignancy.

**CONCLUSION:** RCM seems to be a valuable tool to non invasively differentiate benign from malignant mucosal pigmented macules and target biopsies in cases of equivocal features.