**ABSTRACT**

**BACKGROUND:** Spitz nevus is a benign melanocytic lesion sometimes mistakenly diagnosed clinically as melanoma.

**OBJECTIVE:** Our aim was to evaluate in vivo reflectance-mode confocal scanning laser microscopy (CSLM) aspects of globular Spitz nevi and to correlate them with those of surface microscopy and histopathology.

**METHODS:** A total of 6 Spitz nevi, with globular aspects on epiluminescence observation, were imaged with CSLM and subsequently excised for histopathologic examination.

**RESULTS:** A close correlation among CSLM, epiluminescence, and histopathologic aspects was observed. Individual cells, observed in high-resolution confocal images, were similar in shape and dimension to the histopathologic ones. Lesion architecture was described on reconstructed CSLM images. Melanocytic nests corresponded to globular cellular aggregates at confocal microscopy and to globules at epiluminescence observation. Melanophages were clearly identified in the papillary dermis both by confocal microscopy and histopathology.

**CONCLUSION:** In vivo CSLM enabled the identification of characteristic cytologic and architectural aspects of Spitz nevi, correlated with histopathology and epiluminescence microscopy observation.