

Carta al Director

Morphometric characteristics of *Malassezia* sp. stained with picosirius

Dear Director,

The genus *Malassezia* has been considered an emergent pathogen [4] and could be found in seborrheic dermatitis lesions as spherical yeast cell shapes and in pityriasis versicolor forming short hyphae with yeast cells [3]. Picosirius is used in histology to stain collagen [5] and has been also used to stain *Cryptococcus* spp. and *Paracoccidioides brasiliensis* [1,2]. However, there are not studies using this technique to stain *Malassezia* sp. and determining the dimensions of the fungus in human tissue material. This study describes the staining of the yeast from the genus *Malassezia* sp. by picosirius and the morphometry of this fungus in tissue samples from ten cases of autopsies made in the year 2000. The autopsied people were 26 to 91 years old, seven of which were men. The samples were collected, paraffin embedded, and stained using the hematoxylin and eosin, Grocott and picosirius techniques. The interactive morphometry analysis of *Malassezia* sp. was made from picosirius stained slides under polarized light by the automatic image analyzer system KS 300 Carl-Zeiss (Germany). The area, maximum and minimum diameters were quantified in 96 fungi samples defined by the accumulated mean test. The dimensions were expressed in mean or median according to the Kolmogorov-Smirnov normality test. *Malassezia* sp. was found as spherical or oval structures with staining varying from orange to pink after picosirius staining and analysis under light microscopy (Figure A). The yeasts with a single bud and filamentous forms were frequent (Figure A). Most of the fungi showed spherical structures or "Maltese cross" shape and the color varied from golden to copper under polarized light analysis (Figure B). The glow was less intense or absent in

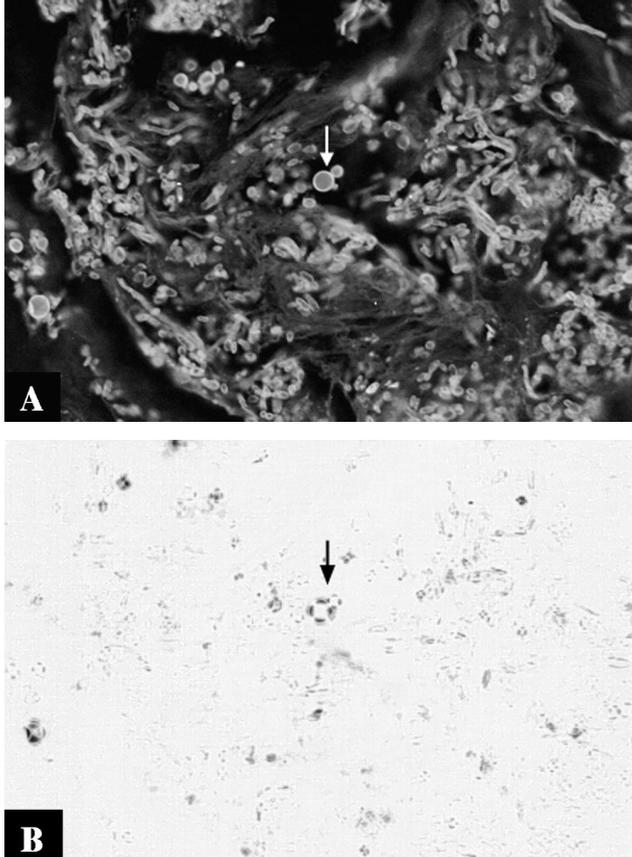


Figure. The fungi show structures varying from spherical to oval shapes and have a single budding (arrow) (A). *Malassezia* spp. in the "Maltese cross" shape (arrow) under polarized light (B), (Picosirius x1000).

smaller fungal cells and in filamentous forms. In cases in which the fungal population were numerous and mingled with tissue flaking and secretions from the human host, the birefringence was less intense. The dimensions of *Malassezia* sp. were 9.42 (3.39 to 31.41) μm^2 of area; $4.1 \pm 0.89 \mu\text{m}$ of maximum diameter and 3.2 (2.07 to 6.20) μm of minimum diameter. In the present study *Malassezia* sp. in tissue was morphometrically described by the picosirius technique similarly to the description of other fungi such as *Cryptococcus* spp. and *P. brasiliensis* [1,2]. Therefore, the picosirius technique was useful for the morphometric and morphologic analysis of *Malassezia* sp.

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