



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

EFFECT OF ISOTRETINOIN AND SYSTEMIC ANTIBIOTICS IN THE ORAL MICROBIOME BY CANDIDA SPP. IN MEXICAN PATIENTS WITH INFLAMMATORY ACNE

A Hernandez Collazo⁽¹⁾ - R Arenas Guzmán⁽²⁾ - J Mayorga Rodríguez⁽³⁾ - R Fernandez Martinez⁽²⁾

Centenario Hospital Miguel Hidalgo, Universidad Autonoma De Aguascalientes, Aguascalientes, Mexico⁽¹⁾ - Hospital Gea González, Mycology, Ciudad De México, Mexico⁽²⁾ - Centro Estatal De Referencia En Micologia, Instituto Dermatológico De Jalisco, Zapopan, Mexico⁽³⁾

Introduction: Isotretinoin and doxycycline are considered therapeutic options for inflammatory acne. But the reports of adverse effects secondary to the alteration of microbial flora during treatment with these drugs are remarkable.¹

Objetives: To compare the effect of isotretinoin and doxycycline on *Candida* spp. found in oral microbiome of Mexican patients with inflammatory acne.

Material and methods: An observational analytical study was conducted on a population with acne that required systemic treatment and who attended dermatology service at the Centenario Hospital Miguel Hidalgo in Aguascalientes, México. The patients were classified into two groups according to the treatment started: isotretinoin or doxycycline; direct examination was performed with Gram stain, Sabouraud dextrose agar culture for colony counting and species determination in CHROMagar on day zero and day 45 of treatment.

Results: Sixty patients were included and only 26 continued in the protocol; of which 15 took doxycycline and 11 isotretinoin. There was no statistical difference in epidemiological characteristics or variables studied on day zero. The direct examination and presence of crop growth did not show differences between both groups. The differences in mean of colony forming units at day 45 and comparative average between day 0 and 45 were significant between both groups, being higher in the isotretinoin group. There were no differences in colony species after treatment.

Conclusions: Both doxycycline and isotretinoin can lead to the proliferation of *Candida* spp. in patients with acne; however, this proliferation is greater in those who take isotretinoin.

