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The Carbohydrate assimilation pattern in Iranian typical and atypical strains of Microsporum Canis

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Abstract:

The values of fourteen carbohydrates assimilation patterns were investigated for typical and atypical strains of Microsporum canis. Thiry eight strains of typical and twenty two strains of atypical Microsporum canis, Microsporum canis NCPF 352 and one Microsporum distortum were included in this study. Statistical analysis of the results indicated that despite limited variations within the pattern of carbohydrate utilization, no correlation. The results also revealed that erythritol and trehalose were best utilized for sporulation by the typical and atypical strains of Microsporum canis. Production of obundant macroconidia, microconidia and chlamydoconidia by use of erythritol and trehalose suggested that these two carbohydrates were effective in production of fluffly appearance in colonies examined. The Microsporum canis NCPF 352 strongly utilized glucose, mannitol and melibiose in addition to the two above-mentioned carbohydrates. Weak erythritol assimilation was observed by Microsporum distortum.Carbohydrate utilization pattern is unable to differentiate typical and atypical strains of Microsporum canis. But it could be regarded as a valuable aid for identification of Microsporum distortum as well as marker in epidemiological investigations.

Keywords:

Microsporum canis ، Microsporum distortum ، Carbohydrate assimilation

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