عنوان مقاله:

Characterization and identification of candiduria due to Candida species in diabetic patients

محل انتشار:

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خلاصه مقاله:

Background and Purpose: The presence of Candida yeasts in urine, known as candiduria, is an indicator of infection or colonization of the urinary tract by Candida species. This condition in diabetic patients can be hazardous due to diminished immune system response. The objective of this study was to investigate the incidence of candiduria in diabetic patients and to identify its causative agents. Furthermore, the demographic and laboratory (HbA₁c, urine glucose and pH, urine culture colony count, and fasting blood sugar) data and their possible associations with candiduria were investigated. Materials and Methods: This cross-sectional, descriptive study was performed on ۳۰۵ diabetic patients referred to the diabetes research center, Hamedan, Iran, during April ۲۰۱۵ to September ۲۰۱۵. Urine and blood specimens were collected and urine analysis, urine culture, FBS, and HbA₁c tests were performed. Positive cases were subjected to colony count and the causative agents were subsequently identified through the routine identification tests, as well as colony color in CHROMagar Candida medium, and the assimilation patterns in API ۲۰ C auxanographic method. Results: Among the ۳۰۵ cases, ۳۸ (%۱۲.۵) were positive for candiduria. Causative agents were identified as Candida glabrata (n=۱۹, ۵۰%), C. albicans (n=۱۲, ۳۱.۶%), C. krusei (n=۴, ۱۰.۵%), C. tropicalis (n=۲, ۵.۳%), and C. kefyr (n=۱, ۲.۶%). According to the results of the statistical analyses, there were significant association between candiduria and female gender, high FBS and urine glucose, uncontrolled diabetes (HbA₁c ≥۸), and acidic urine pH (P < /em><۰.۰۵). Conclusion: Considering the high incidence rate of candiduria in diabetic patients, control of diabetes, predisposing factors, and causal relationships between diabetes and candiduria should be highlighted.

لینک ثابت مقاله در پایگاه سیویلیکا: