

عنوان مقاله:

Hwp\ gene Expression of Candida albicans and Study its role in adherence

محل انتشار:

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خلاصه مقاله:

Candida albicans is an opportunistic fungal pathogen found as mycoflora in the human body surfaces. Sevrar genes play a crucial rule in its virulence including Hwp\ (hyphal wall protein \), BCR\ and ALS gene family. Hwp\ gene is a responsible for coding a cell surface protein, which mediates biofilm formation in candida albicans. Here we investigated the presence of the HWP\ gene was characterised among Candida albicans isolates in women with recurrent vaginal candidiasis and further we studies its role in cell adherence. We used Δ Candida albicans clinical isolates resistant to Fluconazole. RNA (of samples were extracted using glass bead and lysis buffer and cDNA was synthesized using reverse transcriptase enzyme. Expression of (HWP\ gene was analysed using reverse transcriptase-polymerase chain reaction (RT-PCR). The ability of adherence of the isolates with or without the expression of HWP\ were characterized using Hela cells. Statistical analysis were performed using t-test and two-way ANOVA SPSS software. Our results showed that the HWP\ gene were present in 47 samples (94%) out of Δ isolates, 27 samples (57%) had expression of HWP\ . The result of adherence assay revealed that the isolates with the expression of HWP\ gene and control isolates was statistically different ($p < 0.05$). In conclusion, the isolates with the expression of HWP\ gene has the higher ability to adhere the epithelial mucosal cell surface. Our data support a positive correlation between the expression of HWP\ gene and the ability of adherence to epithelial cells.

کلمات کلیدی:

Candida albicans, vaginal candidiasis, Hwp\, adherence

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