Identification of a new agri based medium for the differentiation of *Candida albicans* from other *Candida* species.

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Candida albicans is the most common opportunistic fungal pathogen of the man. Traditionally, the differentiation of *C. albicans* from other *Candida* species is performed through the germ tube test using serum. The aim of this study was to identify a new agri based medium using "Thilina" variety of tomatoes to perform the germ tube test for the differentiation of *C. albicans* from other *Candida* species. This study was carried out using 66 *Candida* isolates including five *Candida* standards and sixty one clinical isolates of different *Candida*species. An inoculums of 100 µl of *Candida* suspension (0.5 McFarland) was mixed with 1 ml of fresh human serum and 1 ml of tomato juice in two separate test tubes. Test tubes were incubated at 37 ºC and the germ tube formation was observed under the ×40 objective of the light microscope at 15 minute intervals for three hours. The presence of germ tubes was noted and the time taken to the germ tubes to be appeared firstly was also marked. The new agri based medium exhibited 97% sensitivity, 100% specificity, 97% positive predictive value, 100% negative predictive value and higher positive correlation ($R^2 > 0.6$) regarding the germ tube test. There was no statistically significant difference ($P > 0.05$) in the mean time of earliest germ tube production when new agri based medium was compared with the routine serum medium.For the first time this study strongly suggests that the human serum can be replaced by "Thilina" variety of tomato juice for the germ tube test for differentiation of *C. albicans* from other *Candida* species

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Key words: Agri based medium, *Candida albicans*, Differentiation, Germ tube formation, Human serum.