FLUCONAZOL SUSCEPTABILITY TESTING OF CANDIDA SPECIES BY DIFFERENT METHODS

Thesis
Submitted In Partial Fulfillment of Mastership Degree In Clinical and Chemical Pathology

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2002
INTRODUCTION

In the last few years, fungal infections have become a major cause of morbidity and mortality in immunocompromized patients who are now surviving longer due to improved medical and surgical care (Espinel-Ingroff et al., 2002). From fungal infection, the candida is the most important one especially candida albicans, which constitutes at least 60% of the candida species isolated from sites of infection (Pfaller et al., 2002).

Primarily, the antifungal chemotherapy of those patient is selected empirically, but in vitro susceptibility tests are needed to help guide that selection (Barry and Brown, 1996). Methods for evaluating the susceptibility of yeast to antifungal agents as fluconazole have been the subject of numerous studies during the last decade (Vanden et al., 2002).

A standard reference procedure has been described by the National committee for clinical laboratory standards (National Committee for Clinical Laboratory Standards, 1995a). This reference procedure is a macrodilution technique which is too cumbersome for use in most clinical laboratories. A broth microdilution adaptation of that procedure has been found to be acceptable (Szekely et al., 1999).

A newly introduced Epsilometer test (Etest) (AB Biodisk, Solna, Sweden) is an easy test that has also been found to be capable
of giving reliable results and can often be read after 24 hs of incubation (Szekely et al., 1999 and Rex et al., 2001 and Espinel-Ingroff et al., 2002).

Fungitest allows determination of the sensitivity of yeasts to antifungal agents according to a standardized method derived from the reference method, which is easy to perform and interpret (Espinel-Ingroff, 1996 and Witthuhn et al., 1999). It is used to study the growth of yeasts in the presence of 6 antifungal agents at 2 different concentrations (Wuytacks et al., 1999).