3. AIMS AND OBJECTIVES
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PART I

ISOLATION, IDENTIFICATION OF CANDIDA SPECIES WITH SPECIAL REFERENCE TO DIFFERENT TYPING METHODS OF CANDIDA ALBICANS.

1. To isolate and identify Candida species from different clinical samples viz. sputum, urine, pus or wound discharge from clinical conditions with likely immunocompromisation such as pulmonary tuberculosis, diabetes mellitus, cancer, burns, chronic hospitalized patients with catheterisation and HIV infected patients.

2. To attempt isolation of Candida from specimens viz. oral gargles and urine (likely sites of commensal colonization) from among age and sex matched healthy controls.

3. To identify the Candida isolates from patients and healthy controls, on the basis of culture, growth morphological pattern, susceptibility to certain chemicals, dyes and antimicrobial agents, and the recommended standard biological characters, into defined known Candida species.

4. To study antifungal drug susceptibility testing of the Candida isolates.

5. To clinically evaluate the isolation of Candida species among C. albicans and non-albicans species for any etio-pathogenic relationship on the basis of frequency of isolation and quantum of load of Candida in the clinical sample obtained.

6. To undertake serotyping and epidemiological typing by using morphotyping, resistotyping and biotyping of all the C. albicans isolates from patients and healthy controls.
PART II

EXPERIMENTAL PATHOGENICITY TESTING OF DIFFERENT SPECIES OF CANDIDA.

1. To study pathogenicity of representative number (n= 3) of prototype strains of the clinically isolated, laboratory identified, different species of Candida namely *C. albicans*, *C. tropicalis*, *C. parapsilosis*, *C. krusei*, *C. kefyr* and *C. guilliermondii* in established animal model, viz. mouse.

2. To study tissue response of injected mice to the Candida isolates on examination at autopsy and histopathologically on microscopic examination.

3. To comparatively evaluate the degree and difference in pathogenicity in experimentally inoculated mice and the organs infected among different clinical Candida species.