**The emergence of non-albicans candidemia in teaching hospital Kandy, Sri Lanka**

**J.A.A.S.Jayaweera1, M. Kothalawala2**

1Department of Microbiology. Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura, Sri Lanka

2Department of Microbiology, Teaching Hospital Kandy, Sri Lanka

**Abstract:**

**Introduction**

Candidemia is an emerging nosocomial blood stream infection (BSI). It is highly prevalent among debilitated and immunocompromised patients. Even following appropriate therapy, recent studies reveal candidemia has high mortality (40%). We have compared the risk factors, epidemiology, demography of *Candida albicans* (CA) and non-albicans candida (NAC) BSI.

**Methods**

This is a laboratory based cross-sectional study. Positive aerobic BACTEC blood cultures having yeast were identified using HiCrome (HiCA) and VITEK2® platform. Epidemiology, risk factors and clinical outcome were compared between CA and NAC blood stream isolates. Measures of central tendency were used.

**Results**

Out of 120 positive yeast samples VITEK2® has identified 110 (92%) as *Candida* spp. From that CA-34 (31 %) and NAC-76 (69%) were isolated. Candidemia following NCA in neonates (p=0.02), infants (p=0.04) and adults (p=0.02) in ICU and immunocompromised patients were significantly higher. Compared to CA, NAC bacteremia period prevalence (0.00041 %) and incidence (0.23 per 100,000-person years) was significantly high (p=0.03). NAC 48 (63%) isolates were resistance to azoles. Exposure to antifungals (odds ratio (OR); p=0.03), prolonged intensive care stay > 14 days (OR-3.3; p=0.04), having a central venous line for >8 days (OR-4.3; p=0.03) and on immunosuppressive treatment (OR-2.4; p=0.04) was significantly poses risk for NAC candidemia. Seven day mortality was significant among non-albicans cases (p=0.03) while 30-day mortality was significant among *C. albicans* cases (p=0.04).

**Conclusion**

Compared to CA, candidemia following NAC was high. NAC isolates were having high percentage of fluconazole and voriconazole resistance. Meticulous infection control practices including immunocompromised population are appealing.

**Biography of presenting author** (should not exceed 100 words)

Dr. J.A.A.S. Jayaweera acquired his MD in medical microbiology and MPhil in medical virology. Dr. Jayaweera has over ten years of research experience in microbiology, biochemistry, nano-biotechnology, complementary and alternative medicine, and biostatistics. He has so far published more than 25 research articles in international peer-reviewed journals. He has won several international awards, and he is serving as a reviewer for many reputed groups of journals in the Global Journal of Medical Research and BMC antimicrobials and infection control. Further, he is an honorary editor in the Annals of clinical immunology and microbiology journal and the chief editor in Asian journal of dermatological sciences.

**Details of presenting author to be mentioned in the certificate:**

Name: Dr. J.A.A.S. Jayaweera

Affiliation: Department of Microbiology, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura, Sri Lanka, 50008

Country: Sri Lanka

**Other Details:**

Presentation Category: (Oral/ Presentation)

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Email: [jaas071@gmail.com](mailto:jaas071@gmail.com)

Alternative email: [jaasjayaweera@rjt.med.ac.lk](mailto:jaasjayaweera@rjt.med.ac.lk)

Contact Number: +0940715200862

Twitter/Facebook/LinkedIn: https://www.linkedin.com/in/sampath-jayaweera-56557170/

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