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Wan Ahmad Kamil, W.N.[a b c] , Zainal, M.[a b d] , Bandara, H.M.H.N.[e] , Arzmi, M.H.[a b f]

Multidrug-Resistant Candida auris and its Role in Carcinogenesis: A Scoping Review
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[a] Department of Fundamental Dental and Medical Sciences, Kulliyyah of Dentistry, International Islamic University Malaysia, Pahang, Kuantan, Malaysia
[b] Cluster of Cancer Research Initiative (COCRII), Kulliyyah of Dentistry, International Islamic University Malaysia, Pahang, Kuantan, Malaysia
[c] Centre of Oral and Maxillofacial Diagnostic and Medicine Studies, Faculty of Dentistry, Universiti Teknologi MARA (UiTM), Selangor, Sungai Buloh, Malaysia
[d] Centre of Preclinical Science Studies, Faculty of Dentistry, Universiti Teknologi MARA (UiTM), Selangor, Sungai Buloh, Malaysia
[e] Bristol Dental School, University of Bristol, Bristol, United Kingdom
[f] Melbourne Dental School, The University of MelbourneVIC, Australia

Abstract
Candida auris was listed as a critical fungal priority group pathogen by the World Health Organisation (WHO) in 2022. It has become a leading cause of invasive candidiasis in serious nosocomial infections globally. While Candida species, particularly C. albicans, are linked to cancer development, the role of C. auris in carcinogenesis remains unexplored. This scoping review aimed to evaluate the existing evidence on the role of C. auris infection in carcinogenesis and its associated risk factors. Following the PRISMA-ScR guidelines, a comprehensive search of three databases was conducted from January 2003 to January 2024 to identify studies addressing the role of C. auris infection in cancer development and its associated risk factors. A total of 124 articles were identified, of which six met the inclusion criteria. These studies reported the risk factors associated with C. auris infection in cancer patients. The findings showed an increased susceptibility of cancer patients to C. auris infections. However, to date, no direct relationship has been reported between C. auris infection and cancer development due to the limited accuracy of diagnostic tools. In conclusion, C. auris infections increase the susceptibility of cancer patients but are not directly involved in carcinogenesis, indicating the urgency for an accurate diagnostic tool for C. auris detection and specialised infection-control measures for cancer patients.

Author Keywords
cancer; Candida auris; carcinogenesis; multidrug resistance; nosocomial infection; risk factors

Index Keywords
cyclooxygenase 2 inhibitor, Ki 67 antigen, protein p53; bile duct carcinoma, bloodstream infection, cancer research, cancer staging, Candida albicans, Candida auris, Candida auris infection, Candida glabrata, candidiasis, carcinogenesis, clinical practice guideline, colorectal carcinoma, DNA damage, hematologic malignancy, histopathology, Hodgkin disease, hospital infection, human, infection control, infection risk, invasive candidiasis, morbidity, mortality, mortality rate, multidrug resistance, multiple myeloma, pneumonia, Preferred Reporting Items for Systematic Reviews and Meta-Analyses, prevalence, Review, risk factor, scoping review

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Correspondence Address
Arzmi M.H.; Department of Fundamental Dental and Medical Sciences, Pahang, Malaysia; email: hafizarzmi@iium.edu.my

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