

Identification of possible pathogens in an office environment

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Introduction There has been the emergence of workplace illnesses due to exposure to various pathogenic agents in most offices. The research herein aims at analyzing bacterial community diversity between offices. Most office set-ups do not isolate immunodeficiency patients, increasing the risk of pathogen increment within the office set-ups (Rocasermeno 92). The research explores the phenomenon with the aim of acquiring the exact statistical value representing the pathogenic distribution. *Micrococcus* spp. regard as gram positive, oxidase-positive and aerobic cocci belongs to the family of micrococcaceae (Koda-Kimble, Mary and Brian 1530). Is there a relationship between working efficiency and pathogenic presence in offices? The disease-causing pathogens lead to various illnesses that may lower the efficiency of personnel in the offices. Due to the reduction in efficiency, the research herein is of a great essentiality.

Materials and methods of sample collection

We obtained the isolate by taking a sample of the used Petri plate with Nutrient agar (Ravichandra 37). Thereafter, exposing it to the air in a small office for approximately 1 hour. The Petri plate helped in the collection of a variety of microorganisms. The microorganisms were from surfaces, strictly chairs, desktops and computer mice. The primary purpose of the methodology was to help in identifying a single unknown culture of bacteria to prove whether it is pathogenic or not.

Test results

Gram stain = Gram-positive

KOH test = no gel formed (Gram-positive)

Oxidase = positive, filter paper turned a dark blue

Catalase = positive produced bubbles

Glucose = positive

Urea = positive

Citrate = negative

Lactose = negative

Methyl Red, Voges-Proskauer (MR-VP) test = both negative

Discussion

The organism I identified via PCR is *Demacoccus nishinomiyaensis* and is non-pathogenic generally regarded as harmless saprophytes (Rose, Joan and Erin 14). It inhabits and contaminates the skin, mucosa, and the pharynx. A Gram-positive coccus locates in tetrads, irregular clusters and cubical agglomerates of eight. It is enzymatic positive and exhibits strictly aerobic metabolic. However, they can be opportunistic disease-causing organisms to the immune-compromised beings. They associated with various infections, including bacteremia, continuous ambulatory peritoneal dialysis peritonitis, and infections related to ventricular shunts. They occur worldwide and are ubiquitous. They locate on the human skin, marine and fresh water, plants, dust, and air.

Works Cited

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apply a concept that is appropriate for mine and plant environments, where dust generated during crushing, screening and conveying must be controlled to protect workers, office spaces and sensitive equipment." E&MJ -

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