

IDENTIFICATION OF MICROBES FROM COLLEGE BAGS

Project by-Kshama Malikar, Sapna Baghel, Pranjali Uike, Pravina Raut
B.Sc.II, Department of Zoology, JB College of Science, Wardha
Supervisor-Dr.A.D.Theng

Introduction:

Most infectious diseases are transmitted by direct contact, either by touching an infected person or by touching surfaces contaminated with pathogens. Thus, crowded classrooms, cafeterias and gyms in schools can be a breeding ground for a variety of diseases including colds, influenza, norovirus and staph infections such as MSRA. Despite of regular cleaning of different surfaces, our backpacks are the carrier agents that we take them everywhere and carry everything we need in them. Usually books, lunchbox, keys, cell phones, purse etc, these bags travel with us without any barrier carrying no. of bacteria from place to place. Thus, this study confines isolation and characterization of different bacterial types found on college bags.

Material and methods

A total of 10 college bags were selected randomly from classroom. To determine the types of microorganisms present, a area of 5cm² was sampled with a moisture sterile cotton swab.

A variety of selective and differential microscopic media was used for presumptive identification of contaminating microorganisms. Gram staining, microscopic examination and confirmatory biochemical tests were performed to further identify bacteria

Results

The findings of this study indicate presence of *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Pseudomonas aeruginosa* and *Bacillus subtilis*, and many fungal colonies are the main bacterial isolates frequently associated with college bags.

Conclusions:

The study showed that all college bags under consideration were infected by several microbes, most of which belonged to the natural flora of the human body as well as airborne fungi and soil. it is therefore greatly recommended that hand-washing hygiene should be adopted before and after using the bags to reduce the microbial transmission. It's also recommended to clean college bags on regular basis.