



## Isolation and Identification of different Microorganisms on Indian Coins

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**Abstract :** *The aim of the study is to explore the inhabitation of microorganisms on Indian coins. All together 8 samples of coins were collected from 8 different sources and analyzed for the presence of microorganisms by standard techniques. Among the total microorganisms isolated from the coin samples, 93% were found to be Gram-positive bacteria and 7% showed the presence of Gram-negative bacteria from 6 different sources. Fungal species of Aspergillus was found on coins collected from only one source. The presence of high microbial load on coins indicates the potentials for possible disease spread in the human being. Therefore, proper handling of coins and hand sanitizing should be done to diminish the chances of contamination.*

**Keywords:-** Indian coins, microorganisms, bacteria, fungi, contaminations, sanitization.

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### Introduction :

Coins are made of ferritic stainless steel and their surfaces become dirty, grimy and corroded overtime and coins spend decades in pockets, purses, drawers, banks, hands and even in the gutter. Coins serve as an agency of transmission of microorganisms since they are used in day-to-day life and act as means of exchange for goods and services. In this manner contaminated coins cause different types of infection to human life (Xu et al., 2005). Pathogenic bacteria and fungus, which survive on the coins, may act as source of enteropathogen that cause stomachache, diarrhea and food poisoning because food vendors, vegetable and fruit sellers handle and serve food, vegetables and fruits and at the same time handle coins. There is high probability of acquiring diseases while using coins which get contaminated by droplets during sneezing and coughing in hands which contain large numbers of microorganisms (Mohammed et al., 2019). The Coins which are carried out by a large number of people build up the possibility of acting as agents for transferring of potential pathogenic microorganism i.e., Bacteria and Fungi (Brady and Kelly, 2000). The level of contamination and risk of pathogens transmission via coins are related to the level of community hygiene and economic status of the Nation (Saadabi et al., 2010; Fonseca et al., 2015).