ABSTRACT

Today our resources are under constant stress from industrial development and population growth, so it is vital to reliably monitor the quality of our environment for present and future generations. Irrigation with the polluted water from Hudiara Drain poses a threat for Physical, Chemical and Biological environment. In present study three genera Micrococcus (*Micrococcus luteus*, *Micrococcus varians*), *Staphylococcus* (*Staphylococcus varians, Staphylococcus epidemidis,* and *Staphylococcus aureus*) and Listeria (*Listeria monocytogenes*) were isolated and identified. All the isolates were copper resistant considerably. Minimal inhibitory concentrations varied slightly among isolated genera.

Micrococcus luteus, *Micrococcus varians*, *Listeria monocytogenes* and *Staphylococcus aureus* showed MIC 9 ml of copper sulfate (having strength of 10mg/100ml copper sulfate), *Staphylococcus varians* exhibited a great variation from other isolates and showed MIC 1 ml of copper sulfate (having strength of 10mg/100ml copper sulfate). While *staphylococcus epidermidis* exhibited MIC from 8 -9 ml of copper sulfate (having strength of 10mg/100ml copper sulfate).

The results indicated little diversity among bacteria. This was due to contamination of the soil by pollutants especially heavy metal, that exerted pressure on biodiversity among microbes, and only those survive which can resist such pollutants and those which are sensitive or not resistant were eliminated.

Keywords: Hudiara Drain, *luteus*, *epidemidis*, *varians*, *monocytogenes*, Minimal Inhibitory Concentrations (MICs), Pollutants