Abstract:

Nerium Oleander is an evergreen ornamental plant used as a stimulant for medicine. This plant is widely dispersed throughout the world. Main objective of this study is to exploit the antibacterial and antioxidant activities of *Nerium Oleander* leaves extract. Antibacterial activity was carried out using well diffusion method whereas antioxidant activity was evaluated using DPPH and ABTS assays. The outcomes of these experiments revealed that ethanolic extract showed greater antioxidant effect whereas methanolic extract exhibited higher antibacterial activity. LC-MS analysis was carried out to further analyze the leaf extract. From the results of LC-MS analysis, it was observed that ethanolic extract have more active phytochemical compounds. Oleandrin was shown to be the primary chemical present in the extract, along with other substances.