

Investigations of antioxidant and antibacterial activities of *Typhonium flagelliforme* (Lodd.) Blume leaves.

ABSTRACT

The antioxidant and antibacterial activity of different extracts from of *Typhonium flagelliforme* (L.) Blume leave (family: Araceae) commonly called 'Rodent Tuber' was assessed towards different antioxidant models as well as in selected bacteria. None of the extracts showed significant activity against the selected strains. The only exception is hexane extract (2.0 ± 0.15 mm diameter) against *Pseudomonas aeruginosa*. The positive control, Streptomycin had shown zone of inhibition of 20 ± 1.5 , 20 ± 1.3 , 23 ± 1.5 and 23 ± 1.0 mm in Methicillin Resistant *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Salmonella choleraesuis* and *Bacillus subtilis*, respectively. All the extracts were subjected to screening for their possible antioxidant activity. Two complementary test systems, namely DPPH free radical scavenging and total phenolic compounds, were used for the analysis. The results showed that the inhibitory activity of Dichloromethane ($60.7 \pm 3.2\%$) and Methanol ($60.1 \pm 2.3\%$) extracts were comparatively commendable inhibition capacity when compared to the positive control BHT ($95.3 \pm 1.3\%$). The total phenolic content of Methanol extracts (5.69 ± 0.15 GAE mg g⁻¹ extract) was superior to all other extracts, followed by dichloromethane and ethyl acetate. Considering all the results collectively *T. flagelliforme* appears to be a promising plant demonstrating antioxidant activity that requires further investigation.

Keyword: Antibacterial activity; Antioxidant activity; Rodent tuber; *Typhonium flagelliforme*.