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## Evaluation of in-vitro anti-mycobacterial activity of selected medicinal plants in Mekelle, Northern Ethiopia

Adane Worku  
Addis Ababa Univeresity, Ethiopia

In the present study, six medicinal plants: *Allium ursinum* (bulb), *Anethum graveolens* (areal part), *Buddleja polystachia* (leaf), *Croton macrostachys* (leaf), *Dodonaea anguistifolia* (leaf) and *Pterolobium stellatum* (leaf), which are traditionally used to treat TB and related symptoms in Northern part of Ethiopia, were selected for the study. Crude extracts were prepared from the selected species by maceration using 80% ethanol. Various concentrations (250 mg/ml, 500 mg/ml and 1000 mg/ml) of the extracts were then screened for anti-mycobacterial activity against *Mycobacterium tuberculosis* H37Rv strain using Micro plate Alamar Blue Assay (MABA). Various concentrations (1, 3, 6, 12.5, 25, 50, 125, 250, 500, 1000 mg/ml) of the extracts from the plant species that showed anti-mycobacterial activity were used to determine their respective Minimum Inhibitory Concentrations (MICs). Only three plants (*A. ursinum*, *D. anguistifolia* and *P. stellatum*) of the screened medicinal plants showed anti-mycobacterial activity. The MIC of *A. ursinum* and *P. Stellatum* extract was 250 mg/ml; while that of *D. anguistifolia* was 12.5 mg/ml. It can be concluded that the present study provided a scientific support for the traditional use of *Allium ursinum*, *Dodonaea anguistifolia* and *Pterolobium stellatum* for treatment of tuberculosis.

[adane.worku@aau.edu.et](mailto:adane.worku@aau.edu.et)