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Ethnopharmacological Note

A novel phytomedicinal use of stems of *Calotropis procera* R.Br. (Apocynaceae): Treatment of tuberculosis

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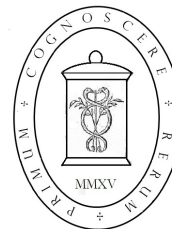
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Calotropis procera R.Br. is a spreading shrub or a small tree native to southern Asia and North Africa. In English the plant is known as ‘Sodom’s apple milkweed’ and in Bengali as ‘akondo’. Most often the plant can be found growing by the roadsides or in the wild. It is a highly regarded medicinal plant and used for multiple therapeutic uses by both folk medicinal practitioners (FMPs) and tribal medicinal practitioners (TMPs) of Bangladesh. The various ethnomedicinal uses of *Calotropis procera* R.Br. in Bangladesh are shown in Table 1.

Table 1. Reported ethnomedicinal uses of *Calotropis procera* R.Br. in Bangladesh

Ethnomedicinal uses	Reference
Latex administered orally is used to reduce elevated blood glucose levels by a FMP in Noakhali district, Bangladesh.	Roy et al., 2017
Leaf juice is orally taken for tumours in Hatgopalpur village of Jhenaidah district, Bangladesh.	Kundu et al., 2016
Young leaves are warmed and held to affected areas of body or chest to treat body pain and pneumonia, respectively by FMP of Rangpur district, Bangladesh.	Azad et al., 2014
Leaves are brushed with oil, warmed, and applied to painful areas to alleviate pain by a FMP in Kawari Nagar Bazaar village of Pabna district, Bangladesh.	Kamal et al., 2014
Warm leaves are held to painful areas during rheumatic pain by the Marma tribal community of Khagrachhari district, Bangladesh.	Malek et al., 2014
Bauri TMPs of Moulvibazar district, Bangladesh, apply stem sap to abscess to eliminate pus and alleviate pain.	Das et al., 2013
Leaves are used for bone fracture and roots are used for edema by FMPs of two villages in Natore district, Bangladesh.	Hasan et al., 2013
Leaves are warmed and applied to joints to alleviate joint pain and to chest to get relief from pneumonia in Narayanganj district, Bangladesh.	Karim et al., 2011
Warm leaves are applied to painful areas of the body by the villagers in Mirzapur village of Dinajpur district, Bangladesh.	Rahmatullah et al., 2010

A novel ethnomedicinal use of stems of *Calotropis procera* R.Br. (Figure 1) was brought to our attention from a FMP in Kanchanpur village in Noagaon district, Bangladesh. The FMP advised to take dry stem of the plant, light them and inhale the smoke like as it is done for cigarettes. This was to be done twice daily, and the FMP claimed that this mode of treatment cures tuberculosis. Although the plant is very common in Bangladesh, plant specimen as shown by the FMP was collected and identified at the Bangladesh National Herbarium (Accession Number 43,900). Tuberculosis is prevalent in Bangladesh (Barman et al., 2017). What is more serious is that multi-drug resistant tuberculosis is



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reportedly present in overall 7% tuberculosis patients, 1.4% in new and 28.5% in previously treated patients (Banu et al., 2017). It is expected that *Calotropis procera* R.Br. may present new opportunities towards treatment of tuberculosis.

Keywords: medicinal plants *Calotropis procera*, tuberculosis

Declaration of conflict of interest

No conflict of interest associated with this work.

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Figure 1. *Calotropis procera* R.Br.