



Use of *Curcuma amada* Roxb. (Zingiberaceae) Rhizomes for Treatment of Diabetes

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Curcuma amada Roxb. (Zingiberaceae) is known in English as mango ginger and in Bengali as amada or aam holud. The plant is native to India and can be found in the wild in both parts of Bengal, namely East Bengal (currently a sovereign country known as Bangladesh) and in West Bengal (a part of India). Crude aqueous-methanol extract of rhizomes of the plant has been shown to demonstrate hypoglycemic and antihyperglycemic activities in normal and alloxan-induced diabetic mice (Syiem et al., 2010). Fresh inflorescence of the plant is smelled and rubbed on the head as treatment for headache by the Garasia tribe of Sirohi district in Rajasthan, India (Meena & Yadav, 2011). The rhizome is used to treat amebic dysentery by the Rajbonsi tribe of Coochbehar district, West Bengal, India (Roy, 2015). Rhizome powder is used for treatment of diarrhea by tribals of Majhgawan Block of district Satna, Madhya Pradesh, India (Singh & Sharma, 2011). There is a previous report of use of this plant in bone fractures in Bangladesh (Mukti et al., 2012). In this ethno-note, we describe the use of rhizomes (Figure 1) by a folk medicinal practitioner (FMP) from Naogaon district, to lower blood glucose in diabetic patients. The FMP was named Md. Tozammel Haque and practiced in Keshail village of Naogaon district. The FMP mentioned that he obtained this knowledge from his father. In his formulation, the FMP collected juice from fresh rhizomes. One cup of juice was taken thrice daily; once in the morning before breakfast, and the other two cups after lunch and dinner. The morning dose should never be missed. Any extra juice was recommended to be stored at least in the refrigerator if not in the freezer. The therapy was to be continued for 45 consecutive days. To increase the strength of the formulation, the FMP occasionally mixed with the rhizome juice, juice obtained from fruits of *Ficus racemosa* L. (Moraceae family, known in English as cluster fig and in Bengali as jaga dumur) (Figure 2) and juice obtained from leaves of *Azadirachta indica* A. Juss. (Meliaceae family, known in both English and Bengali as neem) (Figure 3). It may be mentioned in this regard that both plant parts have reported blood glucose lowering effects (Zulfiker et al., 2011; Akinola et al., 2010). The formulation of the FMP, as such, appears to have scientific validation for use as a blood glucose lowering agent in diabetic patients. *Curcuma amada* Roxb., *Ficus racemosa* L., and *Azadirachta indica* A.



Juss. were identified at the Bangladesh National Herbarium with accession numbers of 45384, 45385 and 45677, respectively.

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DECLARATION OF CONFLICT OF INTEREST

No conflict of interest associated with this work.

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Figure 1. Rhizomes of *Curcuma amada*.



Figure 2. *Ficus racemosa* (tree bearing fruits).



Figure 3. Leaves of *Azadirachta indica*.