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### Ethnopharmacological Note

# Novel use of *Ipomoea mauritiana* Jacq. tubers for treatment of multiple diseases

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### Abstract

*Ipomoea mauritiana* Jacq. otherwise known as 'giant potato' in English and 'bhui kumra' in Bengali belongs to the Convolvulaceae family, and is a vinous type of morning glory like plant. In Ayurveda, one of the traditional medicinal systems of India, the plant is known by its Sanskrit name, 'kshiravidari'. The plant (particularly the tubers) is used by Ayurvedic practitioners for treatment of liver and spleen enlargement, gynaecological ailments, and as an aphrodisiac. Several ethnomedicinal uses of the plant have been reported from Bangladesh. In Rangpur district of Bangladesh, seeds of the plant are fried in oil, and the oil is then massaged to get relief from rheumatic pain (Azad et al., 2014). In Naogaon district, tubers are reportedly used to treat tuberculosis and to increase appetite (Anzumi et al., 2014). In Tangail district, Bangladesh, the Garo tribals use the tubers for decreased sperm count and passing of semen with urine (Rahmatullah et al., 2011). In Manikganj district, Bangladesh, tubers are used to treat diabetes (Shahnaj et al., 2015). In Dinajpur district, Bangladesh, tubers are used to enhance memory and to treat bloating, leucorrhoea, and Parkinson's disease (Shah et al., 2017). In Golaghat district of Assam, India, the flowers are used as stimulant (Barukial and Sarmah, 2011). In Kozhikode district, Kerala, India, rhizomes are used for postnatal care Anvar and Haneef, 2015). In Manas National Park of Assam, India, the tribal people use the rhizomes to treat blood pressure, and liver and stomach problems (Das, 2016). A novel use of *Ipomoea mauritiana* (Fig 1) was gathered from a folk medicinal

practitioner named Rabial, practicing in Jaldhaka village, Nilphamari district, Bangladesh. He mentioned that the tuber of the plant, if left to rot naturally (that is not harvested) forms a hard clot, which he called 'gonduraj'. The gonduraj is unearthed, cleaned and fried in mustard oil (oil obtained from seeds of *Brassica juncea*). The fried gonduraj, when taken orally, according to the practitioner can cure cancer, tuberculosis, and passing of blood in urine by females. Interestingly, a PubMed search did not result in finding any reports of *Ipomoea mauritiana* to be effective against cancer or tuberculosis. Thus the plant and particularly the tubers merit scientific attention for possible discovery of anti-cancer and anti-mycobacterial component(s).

**Keywords:** medicinal plants, *Ipomoea mauritiana*, diseases

### Declaration of conflict of interest

No conflict of interest associated with this work.

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Figure 1. *Ipomoea mauritiana*