



January-April 2017. Issue 1. Volume 1

Ethnopharmacological Note

## Novel phytotherapeutic uses by a Tripura tribal healer of *Catharanthus roseus* (L.) G. Don (Apocynaceae)

Ishita Malek\*

Department of Pharmacy, University of Development Alternative, Lalmatia, Dhaka-1207, Bangladesh

Ishita Malek: ishitamalek@yahoo.com

*Catharanthus roseus* (L.) G. Don (Apocynaceae) is a small plant known in English as periwinkle and in Bangladesh as “*Nayantara*”. The plant is considered useful medicinally in traditional medicinal systems of many countries of the world. The plant is used by the Bapedi traditional healers of Limpopo Province in South Africa to treat gonorrhoea (Semenya & Potgieter, 2013). A Santal tribal healer in Dinajpur district, Bangladesh reportedly uses flowers of the plant to treat diabetes (Azad et al., 2014). Malayali tribal people residing in Chitteri Hills, Dharmapuri district, Tamil Nadu, India, use whole plants to treat diabetes and leaves to treat cancer (Kadhirvel et al., 2010). The Irula tribals of Kalavai village, Vellore district, Tamil Nadu, India, uses whole plant to treat diabetes, high blood pressure, and cancer (Natarajan et al., 2013). Reported pharmacological activities of the plant include anthelmintic, antidiabetic, antineoplastic, antidiarrhoeal, and antimicrobial activities (Gajalakshmi et al., 2013). In a survey conducted in Rangamati district, Bangladesh, it was noticed that a Tripura tribal healer, Lukendra Tripura, male, age 48 years, was using leaves and roots of the plant to treat passing of blood with urine (haematuria). The healer’s formulation consisted of boiling leaves and roots of the plant in water (500 ml), which was then taken orally at a dose of half cup thrice daily for one week. Haematuria is caused usually due to cystitis (bladder infection) or kidney stones. This particular therapeutic use of the plant by traditional healers is to our knowledge, so far unreported and so can form the basis for treatment of cystitis or kidney stones following scientific validation. *C. roseus* specimen was collected and deposited with the University of Development Alternative

### References

- Azad AK, Mahmud MR, Parvin A, Chakraborty A, Akter F, Moury SI, Anny IP, Tarannom SR, Joy SK, Chowdhury SY, Akter S, Rahmatullah M (2014) Medicinal plants of a Santal tribal healer in Dinajpur district, Bangladesh. *World J. Pharm. Pharmaceut. Sci.*, 3(10):1597-1606.
- Gajalakshmi S, Vijayalakshmi S, Devi RV (2013) Pharmacological activities of *Catharanthus roseus*: A perspective review. *Int. J. Pharm. Bio. Sci.*, 4(2):431-439.
- Kadhirvel K, Ramya S, Sudha TPS, Ravi AV, Rajasekaran C, Selvi RV, Jayakumararaj R (2010) Ethnomedicinal survey on plants used by tribals in Chitteri Hills. *Environ. We Int. J. Sci. Tech.*, 5:35-46.
- Natarajan A, Leelavinodh KS, Jayavelu A, Devi K, Kumar BS (2013) A study on ethnomedicinal plants of Kalavai, Vellore district, Tamil Nadu, India. *J. App. Pharm. Sci.*, 3(1):99-102.
- Semenya SS, Potgieter MJ (2013) *Catharanthus roseus* (L.) G. Don.: Extraordinary Bapedi medicinal herb for gonorrhoea. *J. Med. Plants Res.*, 7(20):1434-1438.



Figure 1. *Catharanthus roseus* (L.) G. Don