Asian Journal of Pharmacognosy (2017) 1(4):55-58

Asian Journal of Pharmacognosy

Ethnopharmacological Note

Use of *Achyranthes aspera* L. roots and *Cynodon dactylon* (L.) Pers. leaves by a folk medicinal practitioner of Bangladesh to treat menstrual disorders

Tarana Afrooz, Shahanoor Rohani, Mohammed Rahmatullah*

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

**Mohammed Rahmatullah*: rahamatm@hotmail.com

Abstract

Women in Bangladesh frequently suffer from menstrual problems such as dysmennorhea, menorrhagia, light and heavy bleeding during menstruation, and irregular period (Chowdhury, year not mentioned). Both urban and rural women feel shy in discussing these problems with physicians, who besides being unknown may also frequently are males. As a consequence, particularly rural women seek the help of folk medicinal practitioners (FMPs) or tribal medicinal practitioners (TMPs) with whom they are more at ease, because such practitioners not only may reside in the same village but also can be informed of the problem through a male relative of the woman. A number of plant-based formulations have been reported to be used by FMPs of Bangladesh to treat various menstrual disorders. The women of the Rai clan of the Tipra tribe in Sylhet district, Bangladesh are advised by their TMPs to orally take flowers of *Hibiscus rosa sinensis* L. (Malvaceae) fried in clarified butter (ghee) for excessive menstrual bleeding; for irregular menstruation, soft pulp within the leaves of *Aloe vera* (L.) Burm.f. (Liliaceae) are orally taken (Nahar et al., 2013). A FMP of Sreemangal Upazila, Maulvibazar district, Bangladesh, advises to take orally juice obtained from leaves of *Eupatorium odoratum* L. (Asteraceae) along with juice obtained from leaves of *Cynodon dactylon* (L.) Pers. (Poaceae) for irregular menstruation (Rana et al., 2014). Juice obtained from macerated roots of *Vitis trifolia* L. (Vitaceae) is taken with cold water and cow milk twice daily for excessive bleeding during menstruation by the Soren clan of the Santal tribe in Rajshahi district, Bangladesh (Rahmatullah et al., 2012). Other tribal healers of the Santal tribe residing in Rajshahi district put warm paste of whole plants of *Achyranthes aspera* L. (Amaranthaceae) and *Cuscuta reflexa* Roxb. (Cuscutaceae) in a piece of cloth, which is tied to the vaginal area as treatment for excessive bleeding after menstrual period (Shahidullah et al., 2009). As treatment for excessive bleeding during menstruation, FMPs of several villages in Narail and Jessore districts, Bangladesh advise taking a 1.5 inch root of *Achyranthes aspera* L. (Amaranthaceae) along with one leaf of *Piper betle* L. (Piperaceae) and one nut of *Areca catechu* L. (Arecaceae), which are chewed together and the resultant juice swallowed on an empty stomach. Next, a handful of young leaves of *Cayratia trifolia* (L.) Domin. (Vitaceae) is fried thoroughly and taken with a handful of boiled rice, which is still warm. The process is carried out 2-3 times daily for 2-3 days (Biswas et al., 2011).
Pills prepared from top portions of leaves of *Clerodendrum viscosum* Vent. (Verbenaceae) and leaves of *Vallaris solanacea* (Roth) Kuntze (Apocynaceae) are used by a FMP in Manikganj district,

 eISSN-0128-1119

Bangladesh to treat menstrual disorders (Shahnaj et al., 2015). For irregular menstruation, FMPs of Shitol Para village, Jhalokati district, Bangladesh use roots of *Gloriosa superba* L. (Liliaceae) (Rahmatullah et al., 2010). FMPs in Sylhet and Moulvibazar districts, Bangladesh advise taking of *Mimosa pudica* L. (Fabaceae) leaf juice to control heavy bleeding during menstruation (Akter et al., 2015). The FMPs in a village in Narayanganj district, Bangladesh orally administer leaves of *Jasminum sambac* (L.) Aiton. (Oleaceae) or flowers of *Hibiscus rosa sinensis* L. (Malvaceae) fried in ghee for menstrual problems (Karim et al., 2011). Bark decoction of *Saraca asoca* (Roxb.) Willd. (Fabaceae) is used to treat irregular menstruation by a FMP in Noakhali district, Bangladesh (Rahman et al., 2017).
In this note, we describe a novel formulation to treat any sort of menstrual disorder as claimed by a FMP of Manda Police Station, Naogaon district, Bangladesh. In his method, the FMP used juice from crushed roots of *Achyranthes aspera* L. (Amaranthaceae, English: chaff-flower, Bengali: apang, Fig 1), (plant should have red-tinged buds) combined with leaf juice of *Cynodon dactylon* (L.) Pers. (Poaceae, English: Bermuda grass, Bengali: durba ghas, Fig 2) and taken thrice daily for three consecutive days. It is to be noted that *Cynodon dactylon* is very common and its leaf juice is mostly used in Bangladesh by TMPs and FMPs to stop bleeding from external cuts and wounds (Malek et al., 2014). Colour can be a criterion for selection of plants; red-coloured plants may be selected to treat ailments involving blood, like treatment of wounds with *Cercis canadensis* L. (Fabaceae, English: Eastern redbud) by Native American people (Elisabetsky and Etkin, year not given), which is red in colour. That the FMP used red coloured budded *Achyranthes aspera* may be due to the fact that menstruation involves blood.

Keywords: medicinal plants; *Achyranthes aspera*; *Cynodon dactylon*; diabetes

Declaration of conflict of interest

No conflict of interest associated with this work.

References

Akter S, Khairuzzaman M, Saleem SM, Sattar F, Rahman I, Yesmin MS, Malek I, Bashar ABMA, Rahmatullah M (2015) Documentation of some folk medicinal practices in Sylhet and Moulvibazar districts, Bangladesh. World J. Pharm. Pharmaceut. Sci. 4(8): 176-186.

Biswas KR, Khan T, Monalisa MN, Swarna A, Ishika T, Rahman M, Rahmatullah M (2011) Medicinal plants used by folk medicinal practitioners of four adjoining villages of Narail and Jessore districts, Bangladesh. Am.-Eur. J. Sustain. Agric. 5(1): 23-33.

Chowdhury S (Year not mentioned) Menstrual problems of Women in Bangladesh. Monograph Series 5, James P. Grant School of Public Health, BRAC University, Dhaka, Bangladesh.

Elisabetsky E, Etkin NL (year not given) Ethnopharmacology: An overview. In: Ethnopharmacology, vol. I, Encyclopedia of Life Support Systems (EOLSS).

Karim MS, Rahman MM, Shahid SB, Malek I, Rahman MA, Jahan S, Jahan FI, Rahmatullah M (2011) Medicinal plants used by the folk medicinal practitioners of Bangladesh: a randomized survey in a village of Narayanganj district. Am.-Eur. J. Sustain. Agric. 5(4): 405-414.

Malek I, Miah MR, Khan MF, Awal RBF, Nahar N, Khan I, Chowdhury S, Rahmatullah M (2014) Medicinal plants of two practitioners of two Marma tribal communities of Khagrachhari District, Bangladesh. Am.-Eur. J. Sustain. Agric. 8(5): 78-85.
Nahar MN, Ferdous J, Samanta FZ, Shuly KA, Nahar S, Saha R, Islam S, Mahal MJ, Seraj S, Rahmatullah M (2013) Ethnomedicinal plants of the Rai clan of the Tipra tribe of Sylhet district, Bangladesh. Am.-Eur. J. Sustain. Agric. 7(5): 403-414.

 eISSN-0128-1119

Rahman T, Roy PR, Chhanda NN, Seraj S, Rahmatullah M (2017) Combination of Ayurveda and folk medicine: Plants and formulations of a traditional medicinal practitioner in Noakhali district, Bangladesh. J. Med. Plants Stud. 5(1): 292-297.

Rahmatullah M, Nuruzzaman M, Hossan MS, Khatun MA, Rahman MM, Jamal F, Harun-Or-Rashid M, Nasrin D, Seraj S, Jahan R (2010) An ethnomedicinal survey of folk medicinal practitioners of Shitol Para village, Jhalokati district, Bangladesh. Adv. Nat. Appl. Sci. 4(1): 85-92.

Rahmatullah M, Hasan A, Parvin W, Moniruzzaman M, Khatun A, Khatun Z, Jahan FI, Jahan R (2012) Medicinal plants and formulations used by the Soren clan of the Santal tribe in Rajshahi district, Bangladesh for treatment of various ailments. Afr. J. Tradit. Complement. Altern. Med. 9(3): 350-359.

Rana MS, Islam MM, Bosunia SN, Mahmud SR, Santa SA, Snigdha SH, Mahal MJ, Rahmatullah M (2014) A survey of medicinal plants used by a village folk medicinal practitioner in Sreemangal Upazila of Maulvibazar district, Bangladesh. Am.-Eur. J. Sustain. Agric. 8(1): 1-9.

Shahidullah M, Al-Mujahidee M, Uddin SMN, Hossan MS, Hanif A, Bari S, Rahmatullah M (2009) Medicinal plants of the Santal tribe residing in Rajshahi district, Bangladesh. Am.-Eur. J. Sustain. Agric. 3(2): 220-226.

Shahnaj S, Asha U, Mim T, Rumi NSH, Akter S, Ghose SR, Akter S, Islam MT, Das PR, Rahmatullah M (2015) A survey on the ethnomedicinal practices of a folk medicinal practitioner in Manikganj district, Bangladesh. J. Chem. Pharmaceut. Res. 7(8): 690-696.

Figure 1. *Achyranthes aspera* L.

 eISSN-0128-1119

Figure 2. *Cynodon dactylon* (L.) Pers.

 eISSN-0128-1119