

Some Medicinal Plants Used by the Rural Practitioners (Kabiraj or Boiddya) of Bangladesh for Treating Menstrual Troubles and Leucorrhoea

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The traditional practitioners of Bangladesh use a huge number of medicinally active plants for the treatment of various diseases including female diseases. The present study reveals that, the traditional medicine men used 60 plant species belonging to 39 families to cure female diseases like menstrual troubles and leucorrhoea. These plants are being used by them from time immemorial. In this paper short diagnostic description of these plants, Botanical name, Family name, Tribal name [Chakma (C), Marma (M), Murong (Mu), Mogh (Mo), Santal (S) Tanchangya (T), Garo (G)], Bengali name (B), English name (E), type of the plants, availability, mode of preparation, uses and doses are described.

Keywords: Medicinal plants, Rural practitioners, Menstrual troubles, Leucorrhoea, Traditional medicine, Bangladesh.

Introduction

About eighty percent of the people in developing countries of the world depend on traditional medicines (Behera, 2006). Among them a large number of people use plants and plant parts to treat various diseases such as female menstrual troubles and leucorrhoea. Most of the women start their menstrual cycle in puberty and are stopped into their 50's. But some women suffer from menstrual problems like amenorrhoea (complete absence of period), dysmenorrhoea (unusually painful menstruation), menorrhagia (heavy bleeding during menstruation), oligomenorrhoea (irregular period) etc. On the other hand leucorrhoea is an abnormal

condition which is commonly known to a whitish discharge from the female genitals. It may appear during the few years before or after the start of the menstrual cycle. Bangladeshi traditional medicine men treat these diseases for hundreds of years using many kinds of medicinally active plant materials. These plants and plant parts are used in various forms viz. infusion, decoction, paste, dry powder, juice, pill, extract, essential oil etc. (Table 2).

Methodology

The study was carried out in different rural areas of seven divisions in Bangladesh. The information about plant description such as name, time of plant collection, plant parts use, fresh or dry, medicinal uses, plant preparation etc. were collected by interviews with traditional village practitioners, elderly person and other knowledgeable informants from the communities. The information was reconfirmed by repeated interviews with other person or practitioners in same places as well as with same persons or practitioners several times. If at least three informants had same reply regarding the medicinal plants then the informations were considered appropriate. Plant preparation have been tabulated following their time of uses and normal dosages (Table 2).

Plants Enumeration

1. ***Abroma augusta* L. (Sterculiaceae):** *Ulatkambal* (B), *Polumaoeba* (C), *Daiya* (G), Devil's cotton (E); large shrub; grows in forest and is usually planted.

Parts used: Root bark, leaf and stem.

Uses: An infusion of leaves and stems is beneficial for irregular menstruation. A decoction of root bark is very effective in amenorrhoea and dysmenorrhoea.

2. ***Adiantum capillus-veneris* Linn. (Adiantaceae):** Maiden-hair Fern (E); little evergreen fern; grows in Chittagong and Mymensingh on shady walls.

Parts used: Leaf.

Uses: The infusion of the leaves is very useful to regulate menstruation; two times daily.

3. ***Aloe barbadensis* Mill. (Liliaceae):** *Ghritakumari* (B), Aloe (E); perennial herb; mainly cultivated in Natore.

Parts used: Leaf.

Uses: The fresh juice of the leaves is more effective to treat leucorrhoea. It is also taken once daily for regular menstruation.

4. *Alpinia conchigera* Griff. (Zingiberaceae): *Khetranga* (C); rhizomatous herb; available in the forest of Chittagong and Chittagong Hill Tracts.

Parts used: Rhizome.

Uses: A decoction of the rhizome is taken for menstrual problems; two times in a day.

5. *Amaranthus spinosus* L. (Amaranthaceae): *Katanotey* (B), *Hanuhuya* (M), Prickly Amaranth (E); herbaceous weed; grows in all wild areas of Bangladesh.

Parts used: Whole plant.

Uses: Fresh juice of the whole plant along with root is given to treat leucorrhoea and menorrhagia; 1 or 2 times a day.

6. *Antidesma roxburghii* Wall. (Euphorbiaceae): *Sui Mong* (M); a woody shrub; grows in the forest of Chittagong, Chittagong Hill Tracts and Sylhet.

Parts used: Root and leaf.

Uses: Roots and leaves combined with clove, black pepper and fruit of *Piper longum* to prepare a pill and is given to regulate menstruation; 2-3 times a day for 2 or 3 weeks.

7. *Aristolochia indica* L. (Aristolochiaceae): *Iswarmul* (B), Indian Birthwort (E); unpleasant smelling perennial twining shrub; available in Dhaka, Dinajpur, Tangail, Rajshahi and occasionally in other places.

Parts used: Root and stem.

Uses: Combining roots and stem are made an efficacious remedy in powder form to cure irregular menstruation; twice daily.

8. *Boerhaavia diffusa* Linn. (Nyctaginaceae): *Punarnava* (B), Spreading Hogweed or Pigweed (E); large spreading herb; grows in every area of the country.

Parts used: Whole plant.

Uses: A decoction of whole plant is given 1 to 2 times a day to treat leucorrhoea.

9. *Bombax ceiba* Linn. (Bombacaceae): *Shimul* (B), *Chamful gaith* (T), *Lakh pine* (M), Silk Cotton (E); deciduous tree; grows all over the country.

Parts used: Root and bark.

Uses: Paste of the root is taken with unboiled cow-milk (1:2) for oligomenorrhoea. A decoction of the bark is also taken in menorrhagia and leucorrhoea; 1-2 times daily.

10. *Caesalpinia bonduc* (L.) Roxb. (Caesalpinaceae): *Karanja* (B), *Kang Boi* (M), Fever Nut (E); Climbing shrub; grows in Dhaka, Chittagong and Mymensingh.

Parts used: Leaf.

Uses: An infusion of leaves is more beneficial to control irregular menstruation; twice daily.

11. *Callicarpa tomentosa* (L.) Merr. (Verbenaceae): *Bormala* (B), *Jang gach* (C), *Turmong* (Mo), *Markunchi* (G), *Taramah* (M); medium-sized evergreen tree; grows in Dhaka, Chittagong, Chittagong Hill Tracts, Cox's Bazar, Mymensingh, Sylhet and in the northern districts of Bangladesh.

Parts used: Root.

Uses: Root juice mixed with root juice of *Streblus asper* for treating menorrhagia and irregular menstruation.

12. *Cannabis sativa* Linn. (Cannabinaceae): *Bhang* (B), Indian Hemp (E); erect branching annual herb; available in Dhaka, Kushtia, Faridpur, Dinajpur, Rangpur and Rajshahi.

Parts used: Flower and leaf.

Uses: Resinous extract of leaves and flowering top of the plant is more beneficial for pain in dysmenorrhoea; 2-3 times a day for 2 weeks.

13. *Cardiospermum halicacabum* L. (Sapindaceae): *Lataphatkari* (B), *Kalaboitta* (C), *Nala mariachi* (M), Baloon vine or Winter cherry (E); weak deciduous perennial climber; grows as a weed all over the country in fallow land.

Parts used: Leaf and root.

Uses: Santals (Tribe) take leaf juice with paste of black peppers to treat dysmenorrhoea. A decoction of root is also given twice daily in amenorrhoea.

14. *Celosia argentea* Linn. (Amaranthaceae): *Murga* or *Muragphul* (B), *Kasopai* (M), *Su Sang Sak* (T), Cock's comb (E); annual herb; grows in Dhaka, Chittagong, Chittagong Hill Tracts, Mymensingh, Rangpur, Barishal and Dinajpur.

Parts used: Whole plant.

Uses: In Khagrachari, decoction of the whole plant is given twice daily by traditional practitioners to alleviate menstrual disorders.

15. *Cinnamomum zeylanicum* Breyn. (Lauraceae): *Daruchini* (B), Cinnamon (E); medium-sized evergreen tree; planted everywhere in Bangladesh.

Parts used: Bark.

Uses: Essential oil of the bark is very effective to control excessive menstrual flow.

16. *Cissampelos pareira* L. var. *hirsute* (Buch. ex Dc.) Forman (Menispermaceae): *Nimuka* (B), Velvet-leaf (E); climbing plant; grows in the forest of Dhaka, Chittagong, Sylhet, Tangail and Pabna.

Parts used: Root.

Uses: A decoction of root is taken twice or thrice daily for treating leucorrhoea.

17. *Coleus aromaticus* Benth. (Lamiaceae): *Patharchur* (B), Country Borage (E); perennial herb; grows in different places of Bangladesh.

Parts used: Leaf.

Uses: Leaf juice is taken to control whitish vaginal discharges; 2 times daily.

18. *Cordia dichotoma* Forst. (Boraginaceae): *Bonary* (B), *Chaine* (Mo), Indian cherry (E); medium-sized dichotomous tree; distributed in the forest of Chittagong, Chittagong Hill Tracts, Cox's Bazar, Noakhali and Sylhet.

Parts used: Root.

Uses: Water extract is taken 2-3 times daily to prevent inflammation of vagina during menstruation.

19. *Cucurbita maxima* Duch. (Cucurbitaceae): *Mistikumra* (B), *Kuma Shak* (T), Melon Pumpkin (E); creeping annual herb; cultivated all over the country.

Parts used: Leaf and young shoot.

Uses: Leaves and young shoot are used as vegetable by the Chakma for dysmenorrhoea.

20. *Curcuma zedoaria* Rosc. (Zingiberaceae): *Shoti* (B), Indian Arrowroot (E); perennial rhizomatous herb; grows in the hilly areas of the country.

Parts used: Rhizome.

Uses: Fresh juice is made from rhizome and given 1-2 times daily to treat leucorrhoea.

21. *Dalbergia sisso* Roxb. (Papilionaceae): *Sishu* (B), Indian Redwood (E); medium to large-sized timber tree; it is available all over the country.

Parts used: Leaf and bark.

Uses: An infusion of fresh leaf or a decoction of dried bark is given 2-3 times daily in menorrhagia.

22. *Dendrophthoe falcata* (L.f.) Ett. (Loranthaceae): *Bara Manda* or *Bandha* (B); parasitic large bushy branched shrub; grows as tree parasite throughout the country.

Parts used: Bark.

Uses: A decoction of the bark is very useful for irregular menstruation; two times a day.

23. *Derris uliginosa* Benth. (Papilionaceae): *Pan Lata* or *Goalilata* (B); woody large evergreen, climbing shrub; grows in the coastal zones of Chittagong and Sundarbans.

Parts used: Bark (stem and root).

Uses: A decoction of stem-bark as well as root-bark is very effective in dysmenorrhoea; thrice daily.

24. *Erythrina variegata* L. var *orientalis* (L.) Merr. (Papilionaceae): *Raktamandar* or *Mandar* (B), *Bol-mandal* (G), *Thai Po* (M), Indian Coral Tree (E); small to medium-sized quick growing tree; available in the forest all over the country.

Parts used: Leaf.

Uses: An infusion of leaves is more beneficial to regulate menstruation; it should be taken 2-3 times a day.

25. *Euphorbia thymifolia* Burm. f. (Euphorbiaceae): *Dudhiya* or *Swet Keru* (B), *Pusituar* (S); small annual prostrate herb; grows as a weed throughout the country.

Parts used: Root.

Uses: A decoction of root is taken two times daily to alleviate amenorrhoea.

26. *Ficus glomerata* Roxb. (Moraceae): *Jagadumur* (B), *Jabuna* (Mo), *Zoigga dumur* (C), *Sanak* (M), Fig (E); medium to large-sized evergreen tree; grows all over the country.

Parts used: Fruit.

Uses: The decoction of the ripe fruit is an efficacious remedy to alleviate menorrhagia. The unripe fruit is also taken to check leucorrhoea.

27. *Gossypium herbaceum* Linn. (Malvaceae): *Karpas tula* (B),

Cotton (E); erect shrubby much-branched perennial plant; it is cultivated for cotton production in the North Bengal.

Parts used: Seed, root and root bark.

Uses: An infusion of seeds is very good remedy for painful menstruation. Root and root bark are more helpful to regulate menstruation and also check over-bleeding during menstruation.

28. *Hemidesmus indicus* (L.) Schult. (Asclepiadaceae): *Anantamul* (B), *Chikondudhia* (C), *Mittal* (G), Indian Sarsaparilla (E); slender perennial twiner; grows in the Sal forest of Dhaka, Mymensingh, Tangail and Chittagong Hill Tracts.

Parts used: Root.

Uses: The decoction of the root is more efficacious to cure leucorrhoea; two times daily.

29. *Hibiscus rosa sinensis* Linn. (Malvaceae): *Jaba* (B), *Hindu Ma-pangi* (M), China Rose (E); evergreen, ornamental, much-branched shrub; planted as an ornamental plant in garden throughout the country.

Parts uses: Flower.

Uses: A decoction of flower mixed with green betel nut and is given 2-3 times for treating vaginal discharges. It is also given to regulate menstruation.

30. *Ixora coccinea* L. (Rubiaceae): *Rangan* or *Ranjan* (B), *Kaya machaoi* (M), Jungle-flame Ixora or Flame of the wood (E); much branched small tree; planted in garden all over Bangladesh.

Parts used: Flower.

Uses: Flower is an efficacious remedy to treat leucorrhoea and dysmenorrhoea.

31. *Jasminum sambac* (L.) Ait. (Oleaceae): *Beli* (B), *Mulipai* (C), Arabian Jasmin/Sambac Jasmin (E); evergreen erect shrub; available as a flower plant in gardens all over the country.

Parts used: Root and leaf.

Uses: A decoction of roots and leaves is taken 2 or 3 times daily for menstrual problems.

32. *Leonurus sibiricus* L. (Lamiaceae): *Raktodrone* (B), Motherwort (E); erect perennial herb; grows in waste places throughout the country.

Parts used: Whole plant.

Uses: A decoction of dried plants is used as a good remedy for treating menstrual diseases; twice a day.

33. *Macrotyloma uniflorum* (Lam.) verde. (Fabaceae): *Kurtikalai* (B), *Dail sumi* (T), Horse gram plant (E); twining annual plant; grows in Chittagong Hill Tracts, Dinajpur and Rajshahi.

Parts used: Seed.

Uses: A decoction of seeds is given twice a day for leucorrhoea as well as menstrual troubles.

34. *Mangifera indica* Linn. (Anacardiaceae): *Am* (B), *Tsarat* (Mo), *Thakachu* (G), *Sarock Apaong* (M), *Amm Gaith* (T), Mango (E); small to large-sized tree; planted as a fruit tree throughout the country.

Parts used: Bark and kernel.

Uses: A decoction of the bark and kernel is very efficacious remedy to treat leucorrhoea. It is also useful in menorrhagia, dysmenorrhoea and other menstrual problems; two times daily.

35. *Melastoma malabathricum* Linn. (Melastomaceae): *Datraga* or *Lutki* (B), *Koyi ing saw* (M), Indian Rhododendron (E); much-branched bushy shrub; grows in Chittagong, Chittagong Hill Tracts and Sylhet.

Parts used: Leaf.

Uses: A decoction of leaf is taken by Santal tribes with paste of black peppers to treat leucorrhoea.

36. *Memecylon umbellatum* Burm. (Melastomaceae): *Anjan* (B), Iron wood tree (E); small to medium-sized tree; grows in the forests of Chittagong and Sylhet.

Parts used: Leaf.

Uses: An infusion of leaf is given 2 times daily to cure leucorrhoea.

37. *Michelia champaca* Linn. (Magnoliaceae): *Swarna Champa* (B), *Chenga* (Mo), *Bol-mnabat* (G), Golden Champa (E); medium to large-sized evergreen tree; specially grows in the forests of Chittagong, Chittagong Hill Tracts, Cox's Bazar and Sylhet; also planted as an ornamental tree all over the country.

Parts used: Root and root bark.

Uses: Powdered root and root bark is very effective to regulate menstruation; 1-2 times a day.

38. *Mussaenda glabrata* Hutch. (Rubiaceae): *Nagabali* (B), *Si Jhathru* (M), *Rani Tak* (C); climbing bushy shrub; available in the forest of Chittagong and Chittagong Hill Tracts.

Parts used: Whole plant.

Uses: A decoction of whole plant is taken two times in a day to treat menstrual disorders.

39. *Nelumbium speciosum* Willd. (Nymphaeaceae): *Poddo* or *Padma* (B), *Lotus* (E); erect aquatic herb; grows in ponds and ditches in most of the areas of Bangladesh.

Parts used: Filament.

Uses: Filaments are used to check menorrhagia.

40. *Ocimum gratissimum* Linn. (Lamiaceae): *Ram tulsi* (B), *Midaphul* (C), *Sang haphoi* (M), *Midar roshi gaith* (T), Shrubby basil (E); much branched aromatic shrub; grows in Chittagong, Chittagong Hill Tracts and Cox's Bazar.

Parts used: Leaf.

Uses: The decoction of the leaves is taken 2 times in a day to treat dysmenorrhoea.

41. *Persicaria hydropiper* (L.) Spach. (Polygonaceae): *Bish katali* (B), *Uak tong* (M), *Pepperwort* (E); ascending herb; grows all over the country.

Parts used: Leaf.

Uses: Fresh juice is taken 2/3 times daily to check dysmenorrhoea.

42. *Phyllanthus amarus* Schum. (Euphorbiaceae): *Bhuiamla* (B), *Grukhri* (M), *Kura amluki* (T); small annual herb; grows wild as a weed in all areas of Bangladesh in fallow land.

Parts used: Whole plant.

Uses: Decoction of the whole plant is very useful in leucorrhoea; two times daily.

43. *Phyllanthus emblica* L. (Euphorbiaceae): *Amla* (B), *Ambari* (G), *Amloti* (C), *Soisha* (M), *Khulu* (Mu), *Emblic Myrobalan* (E); small to moderate-sized deciduous tree; grows everywhere in the country.

Parts used: Fruit.

Uses: The dried fruits are crushed and powder is taken with some sugar to cure leucorrhoea; twice in a day.

44. *Rourea commutata* Planch. (Connaraceae): *Anone-louchari* (M); large glabrous evergreen shrub; grows in evergreen forests of Chittagong Hill Tracts and Sylhet.

Parts used: Root.

Uses: Fresh juice of the roots is taken twice daily as an efficacious remedy to prevent excess bleeding during menstruation.

45. *Saraca indica* Linn. (Fabaceae): *Asok* (B), *Moma* (C), *Prajok* (M), *Paying* (Mo), *Ashoka* (E); small to moderate-sized tree; available in Chittagong Hill Tracts and also planted all over the country.

Parts used: Bark and seed.

Uses: Powder of the bark and seed is given thrice a day in menorrhagia. It is also used to alleviate leucorrhoea.

46. *Sesamum indicum* Linn. (Pedaliaceae): *Til* (B), *Gaishya* (T), *Sesame* (E); erect annual bushy herb; cultivated in many districts of the country.

Parts used: Seeds.

Uses: Powdered seeds are very useful for the treatment of amenorrhoea and dysmenorrhoea; given 2/3 times daily.

47. *Sesbania sesban* (L.) Merr. (Papilionaceae): *Dhaincha* or *Jayanti* (B), *Common Sesban* (E); small soft-wooded perennial tree; grows throughout the country.

Parts used: Seed.

Uses: Powdered seeds are very effective to regulate menstruation. These are also useful to control excessive menstruation.

48. *Sida cordifolia* L. (Malvaceae): *Brela* or *Bala* (B), *Oak Khi Pane* (M), *Country-Mallow* (E); annual or perennial much branched shrub; mainly grows in Dhaka, Chittagong and Chittagong Hill Tracts.

Parts used: Root.

Uses: Powder of the roots is very useful in leucorrhoea; given twice daily.

49. *Sida rhombifolia* L. (Malvaceae): *Lal Berela* (B), *Ohah ki pale* (M), *Broomjute sida* (E); small erect perennial undershrub, grows in Dhaka, Chittagong, Cox's Bazar, Gazipur, Barguna, Sunamganj and Bandarban.

Parts used: Root.

Uses: Paste of the root is mixed with milk and honey and is given 1/2 times in a day to cure leucorrhoea.

50. *Spondias pinnata* (L.f.) Kurz. (Anacardiaceae): *Amra* (B), *Thoura* (Mo), *Ambi-thong* (G), *Wild Mango* or *Hog Plum* (E); small to

medium-sized deciduous tree; available in Chittagong, Chittagong Hill Tracts, Dhaka, Cox's Bazar, Dinajpur, Tangail, Barishal and Sylhet.

Parts used: Leaf, root and bark.

Uses: Paste of the leaf and root is given to regulate menstruation. Decoction of bark is also useful for leucorrhoea; twice daily.

51. *Symplocos racemosa* Roxb. (Symplocaceae): *Lodh* (B), *Lodh Tree* or *China Nora* (E); small evergreen tree; grows in the forest of Sylhet.

Parts used: Bark.

Uses: Decoction of the bark is taken two or three times daily to prevent excessive bleeding in menstruation.

52. *Tarennia campaniflora* (Hook. f.) Balak. (Rubiaceae): *Haru lodi* or *Barachallya* (C); flowering plant; available in Chittagong Hill Tracts.

Parts used: Bark.

Uses: Powder form of the bark is taken with sugar to cure dysmenorrhoea; two times daily.

53. *Terminalia arjuna* (Roxb.) W. & A. (Combretaceae): *Arjun* (B), *Arjuna Myrobalan* (E); large deciduous tree; grows throughout the country.

Parts used: Bark.

Uses: A decoction of the bark is useful in menstrual disorders and leucorrhoea; twice a day.

54. *Terminalia Bellirica* (Gaertn.) Roxb. (Combretaceae): *Bahera* (B), *Sacheng* (Mo), *Bora-gach* (C), *Bol-suiri* (G), *Ka Sing Ba* (M), *Boya Gula* (T), *Beleric Myrobalan* (E); large deciduous tree; planted everywhere in Bangladesh.

Parts used: Fruit.

Uses: In Khagrachori Hill tracts area, decoction of fruits is taken to cure menstrual disorders.

55. *Vitex peduncularis* Wall. (Verbenaceae): *Boruna* (B), *Krawru* (Mo), *Ashmul Gaas* (C), *Salong* (M), *Shilangri* (G); moderate-sized to large deciduous tree; grows in the forests of Chittagong, Chittagong Hill Tracts, Cox's Bazar, Tangail, Sylhet and Gazipur.

Parts used: Root.

Uses: Root juice is given 1-2 times daily as an efficacious remedy to prevent excess bleeding during menstruation.

56. *Vitex trifolia* Linn. f. (Verbenaceae): *Pani-samalu* or *Choto Nishinda* (B), *Niramizhechi* (C), Indian wild pepper (E); aromatic shrub or small tree; grows in Chittagong and Cox's Bazar.

Parts used: Fruit.

Uses: Fruits are very useful in amenorrhoea.

57. *Woodfordia fruticosa* (L.) Kurz (Lythraceae): *Dhaiphul* (B), *Se Be Gra* (M), *Mricha* (Mu), Fire-flame Bush (E); large shrub; grows in Chittagong and Chittagong Hill Tracts.

Parts used: Leaves and flowers.

Uses: Powdered leaves and flowers are given with honey for the treatment of menorrhagia and leucorrhoea; thrice daily.

58. *Wrightia arborea* (Dennst.) Mabb. (Apocynaceae): *Dudh-koraiya* (B), *Bol-matra* (G); small deciduous tree; grows in Chittagong, Chittagong Hill Tracts and Sylhet.

Parts used: Bark.

Uses: A decoction of bark is taken to check menstrual problems; one time a day.

59. *Xanthium indicum* Koenig. (Asteraceae): *Ghagra* or *Banokra* (B), *Lengra* (C), Burweed (E); coarse annual herb; grows as weed all over the country.

Parts used: Whole plant.

Uses: A decoction of the plant is more effective to treat leucorrhoea as well as menorrhagia; given twice daily.

60. *Zingiber montanum* (Koenig) Dietrich. (Zingiberaceae): *Bonada* (B), *Playu* (M); rhizomatous herb; available in Chittagong, Chittagong Hill Tracts, Tangail, North Bengal and Moulavi Bazar.

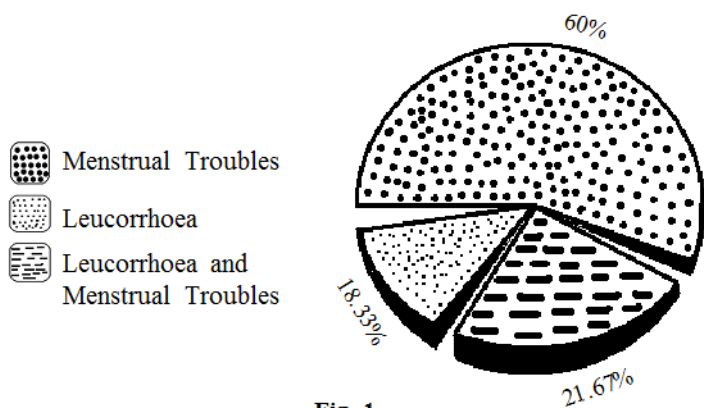
Parts used: Rhizome.

Uses: Fresh juice of rhizome is given in amenorrhoea; 1-2 times a day.

Discussion

The plant description is followed by botanical name which is arranged according to alphabetic order with their family, category and availability in Bangladesh. The current investigation has shown a total of 60 plant species which are generally used by the traditional medicine men (Kabiraj or Boidda) of Bangladesh for treating menstrual troubles and leucorrhoea. Among the plants a total of 36 plant species (60%) are used for menstrual

troubles, 11 plant species (18.33%) for leucorrhoea and 13 Plants (21.67%) are used both for menstrual troubles and leucorrhoea (Fig. 1).



Usually all parts of the plants like for root, leaf, flower, stem, fruit, seed, bark etc. are used by the traditional healers. But root and leaf are used more (15% of the plants in each) followed by bark and whole plant (11.66% of the plants in each), fruit (6.66%), rhizome-root and leaf-seed (5% of the plants in each), flower and leaf-flower (3.33% of the plants in each), root and stem-young shoot and leaf-bark and leaf-seed, root and root bark-bark and kernel-bark and seed-root and root bark-leaf, root and bark-root and bark-filament and root bark, leaf and stem (1.67% of the plants in each) (Table 1). It is true that these plant parts might have strong medicinal values but it is necessary to perform chemical screening of the plants.

TABLE 1
Percentage and Number of the
Medicinal Plants According to their Parts Used

S.No.	Used plant parts	No. of the used plants	Percentage (%)
1.	Root	09	15%
2.	Bark	07	11.66%
3.	Leaf	09	15%

Contd.....

S.No.	Used plant parts	No. of the used plants	Percentage (%)
4.	Whole plant	07	11.66%
5.	Rhizome	03	5%
6.	Root and leaf	03	5%
7.	Seed	03	5%
8.	Fruit	04	6.66%
9.	Root and stem	01	1.67%
10.	Flower and leaf	02	3.33%
11.	Young shoot and leaf	01	1.67%
12.	Bark and leaf	01	1.67%
13.	Seed, root and root bark	01	1.67%
14.	Flower	02	3.33%
15.	Bark and kernel	01	1.67%
16.	Bark and seed	01	1.67%
17.	Root and root bark	01	1.67%
18.	Leaf, root and bark	01	1.67%
19.	Root and bark	01	1.67%
20.	Filament	01	1.67%
21.	Root bark, leaf and stem	01	1.67%

TABLE 2
Mode of Preparation and Doses for
Medicinal Plants and Plant Parts

Mode	Method of preparation	Normal dosages
Infusion	Dried or fresh plant parts are crushed and immersed in hot or cool water. Allowed to rest for one hour or as desired by the physician. It should be taken after straining	Two or three cups
Juice	The plant parts or whole plant are washed perfectly. Then chopped, crushed and squeezed to extract the juice. Then of juice in three table-strained with a fine cotton cloth. It must be prepared fresh spoons of water for daily use	Half teaspoon of juice in three table-spoons of water
Pill	Pill is prepared by mixing dried plant materials (fine powder form) with a binder such as rice paste, juice of sugar cane etc. The mixed materials rolled up to get a tube shape. Then cut into small pieces and dried in air for a few hour and transferred to an air tight container	One piece
Decoction	Dried and powdered plant parts like stem, bark, rhizome, seeds are boiled in the desirable volume of water for about half an hour	Two cups
Essential oil	Clevenger apparatus is used for distillation to extract essential oil from plant or plant parts	One drop

Contd.....

Mode	Method of preparation	Normal dosages
Extract	The dried and powdered plant parts are immersed in boiling water and kept for six to eight hours; strain and heat the aqueous extract to completely evaporate	Two dessert-spoons
Paste	Paste is prepared with crushing dried or raw plant parts and mixed with water or oil	One table-spoon
Powder	The raw plant parts such as bark, leaf, root, flower, seed, stem etc. are dried under shade or as required in the sun shine absolutely; ground the dried plant parts with a grinding machine or a mortar and pestle. Then the ground material is sieved with a fine cotton cloth and dried again in the sun shine for one or two hours or in low temperature on a stone or metallic hotplate. Preserve the dried powdered plant parts in an air tight container	One table-spoon

Conclusion

The present study reveals that a large number of medicinal plants are used in Bangladesh for the treatment of menstrual troubles and leucorrhoea. But it is very necessary to undertake phytochemical and pharmacological screening of these plants. If these plants or their parts are properly utilized in the pharmaceutical industries of Bangladesh on the basis of modern research then the newly invented modern herbal formulations may be exported and the country may earn more foreign currency.

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