



Ethnomedicinal Plants Used as Abortifacient, Contraceptive and Menses in Rural Area of Wardha District of Maharashtra State, India.

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Abstract:

The present study is based on the field investigation of various plants used by tribals of Wardha district to cure gynecological problems. A total of 65 plants species belonging to 58 genera and 36 Families were used by the women of studied region. Women of the region mostly used Seed (32.25%), Whole plant (20.96 %), Roots (20.96%), Leaves (19.35%), Fruit (17.74%), Stem (6.45%), Flower (4.83%), Bark (4.83%), Bulb (3.22%), Latex (1.61%), Rhizome (1.61%), Gum (1.61%) and Oil (1.61%). Majority of the female respondent were aged between 50-70 years of which most were illiterate. Most of the wild plants used against ethno gynecological diseases. The study was carried out from May 2017 to April 2018. The present work deals with the documentation and study of 8 talukas of Wardha district namely Wardha, Hinganghat, Samudrapur, Arvi, Aashti, Seloo, Deoli and Karanja.

Key words: gynecological; contraceptive; menses; abortifacient.

Introduction:

Ethnobotany has emerged as an important branch of study which focuses on utility of different plant species and their properties as food, medicine and for other uses. (Allen, *et al.*, 1990, Cotton, 1997). In India the rural population is dependent on nature for meeting their health care needs. India has a rich knowledge of medicinal plants and art of herbal treatment has very deep root in Indian culture. Even today in most of the rural areas people are depending on herbal drug system for primary health care. The knowledge of use of plants as a source of medicine was known to Ayurveda system of medicine since ancient time and is an important component of the health care system in India

Many plants have been reported to have sterilizing, contraceptive, menses and abortifacient properties. For instance, it has been shown that the most reported methods to induce abortion in India were using herbs, including species such as *Carica papaya* L.

Herbal contraceptives and abortifacients are those plants used for birth control or in the prevention of pregnancy and for premature expulsions of a fetus from the womb.

The Wardha district which is under study has dry tropical weather climate with 1100mm rainfall Height maximum temperature is 47.9⁰C. and highest minimum temperature is 25.4⁰C. Lowest maximum temperature was 28.9⁰C. and lowest minimum temperature is 10.2⁰C. Present study site is at an elevation of 234 meter (767feet) at the longitude of 78.61⁰. East and latitude of 20.71⁰ North (North eastern site of the state) and the landscape of the district face towards the south. The district has a typical seasonal monsoon, where people are engaged in agriculture.

The present investigation therefore attempt to study ethno medicinal plants used by tribal as well as rural people for gynecological purposes. The botanical names, families, local name, parts used ethno botanical

use and mode of preparation, type of used separately. The survey was conducted during the month May 2017 to April 2018 as per the methodology suggested by Lipp. (1989). The survey of different localities of Wardha district was conducted at regular intervals and information of the plant regarding their medicinal use were recorded from vaidus and elderly peoples, and uses of plants in specific rituals and the customs traditions are also recorded. The questionnaires for ethno botanical studies were prepared and information was obtained by interviewing local women. The collected plants are identified with the help of flora of Nagpur district (Ugemuge, 1986), Flora of Maharashtra (Almeida, 1996). The information of all species are recorded with botanical name, vernacular name, common name, ethno botanical used, family, parts used, and mode of preparation.

Material and Methods: In the present ethno-botanical study was carried on a survey basis. The survey regarding ethno-medicinal plants available in the local area for treating various gynecological problems was collected by the prescribed procedure. Extensive field trip was conducted between collected during the month of May 2017 to April 2018, as per the methodology suggested by Lipp (1989). The survey of different localities of Wardha district was conducted at regular intervals and information of the plant regarding their medicinal use were recorded. The questionnaires for the ethno-botanical studies were prepared and information was obtained by interviewing local women and vaidus. The collected plants were identified with the help of Flora Nagpur district (Ugemuge, 1986), Flora of Maharashtra (Almeida, 1996) the information of all species are recorded with botanical name, families, common name, parts used, ethno-medicinal use and mode preparation etc.

Observation:

1. Botanical name: *Abrus precatorius* L.

Family: Fabaceae.

Vernacular name: Gunja.

Parts used: Seed.

Ethnomedicinal used: Contraceptive and normal delivery.

Mode of preparation: Half teaspoon paste in tablet form twice a day in empty stomach for three days just after completion of menstrual period.

Normal delivery: Seed paste with a glass of milk given this preparation at bed time to release to the fetus.

2. Botanical name: *Butea monosperma* (Lam.) Taub.

Family: Fabaceae.

Vernacular name: Palas.

Parts used: Dried seeds.

Ethno medicinal used: Abourtifacient.

Mode of preparation: Dried seed paste of *Solanum xanthocarpum* Schrad. Fresh *Coccinia grandis* (L.) Voigt. Stem dried seed of *Vitex negundo* L., *Caesalpinia pulcherrima* (L.) S.W. *Holarrhena antidysenterica* (L.) Wall. *Rubia cordifolia* L. Fresh seed of *Ricinus communis* L. Fresh seed of *Saraca asoca* (Roxb.) W.J De. Wild dried fruit of *Sapindus mukorossi* Gaertn are prepared separately and mixed in equal ratio. Tablets are then prepared from this mixture one tablets contains half teaspoon of the mixture one tablet daily after dinner for seven days.

3. Botanical name: *Prosopis spicigera* L.

Family: Fabaceae

Vernacular name: Shami.

Parts used: Flower.

Ethno medicinal used: Miscarriage.

Mode of preparation: The flower are pounded mixed with sugar and eaten during pregnancy as a safe guard against miscarriage.

4. Botanical name: *Erythina variegata* L.

Family: Fabaceae

Vernacular name: Pangra.

Parts used: Root.

Ethno medicinal used: Menstrual period.

Mode of preparation: Juice made from roots are used the flow of menstrual period.

5. Botanical name: *Saraca asoca* (Roxb.) Willd.

Family: Fabaceae

Vernacular name: Ashoka

Parts used: Seed

Ethno medicinal used: Abourtifacient

Mode of preparation: Dried seed paste of *Solanum xanthocarpum* Schrad., fresh *Coccinia grandis* (L.) Voigt., stem dried seed of *Vitex negundo* L., *Caesalpinia pulcherrima* (L.) S.W. *Holarrhena antidysenterica* (L.) Wall., *Rubia cordifolia* L., fresh seed of *Ricinus communis* L., fresh seed of *Saraca asoca* (Roxb.) W.J De., wild dried fruit of *Sapindus mukorossi* Gaertn are prepared separately and mixed in equal ratio. Tablets are then prepared from this mixture one tablets contains half teaspoon of the mixture one tablet daily after dinner for seven days.

6. Botanical name: *Caesalpinia pulcherrima* (L.) S.W.

Family: Caesalpinaceae

Vernacular name: Shankhasur

Parts used: Seed

Ethno medicinal used: Abourtifacient

Mode of preparation: Dried seed paste of *Solanum xanthocarpum* Schrad. Fresh *Coccinia grandis* (L.) Voigt.. Stem dried seed of *Vitex negundo* L., *Caesalpinia pulcherrima* (L.) S.W. *Holarrhena antidysenterica* (L.) Wall. *Rubia cordifolia* L. Fresh seed of *Ricinus communis* L. Fresh seed of *Saraca asoca* (Roxb.) W.J De. Wild dried fruit of *Sapindus mukorossi* Gaertn are prepared separately and mixed in equal ratio. Tablets are then prepared from this mixture one tablets contains half teaspoon of the mixture one tablet daily after dinner for seven days.

7. Botanical name: *Cassia alata* L.

Family: Caesalpinaceae

Vernacular name: Candle bush

Parts used: Leaves and roots.

Ethno medicinal used: Abourtifacient and Contraceptive

Mode of preparation: Abourtifacient Tablets are prepared from leaf paste one tablets contains one spoon of that paste Two tablets twice daily for three days.

Contraceptive – Ten gram fresh root is mixed with ten gram *Cynodon dactylon* (L.) Pers. 5 fresh *Piper betle* L. Leaves and 10 gm fresh *Ricinus communis* L. root. Paste decoction is prepared 5ml of this daily in empty stomach for 7 days after completion of menstrual cycle.

8. Botanical name: *Tamarindus indica* L.

Family: Caesalpinaceae

Vernacular name: Chinch

Parts used: Fruit

Ethno medicinal used: Abourtifacient

Mode of preparation: One cup of hot water extract of fruit is taken for a single day.

9. Botanical name: *Senna occidentalis* L.

Family: Caesalpinaceae.

Vernacular name: Kasvida

Parts used: Fruit, Leaf and Seed.

Ethno medicinal used: Menorrhagia.

Mode of preparation: Different parts are made into powder and mixed with milk to drink orally.

10. Botanical name: *Acacia nilotica* (L.) Willd. ex.Delile.

Family: Babul.

Vernacular name: Leaves, Bark, Pods.

Parts used: Caesalpiniaceae

Ethno medicinal used: Gynecological gonorrhoea and female impotency.

Mode of preparation: Decoction is used to treat menstrual disorder and contraceptive. Gum is used to treat gonorrhoea.

11. Botanical name: *Gossypium herbaceum* L.

Family: Malvaceae

Vernacular name: Kapus.

Parts used: Fresh root

Ethno medicinal used: Contraceptive

Mode of preparation: Decoction of fresh root is prepared and one teaspoon decoction is taken daily for 5 days.

12. Botanical name: *Hibiscus rosa-sinensis* L.

Family: Malvaceae

Vernacular name: Jasvand.

Parts used: Flower

Ethno medicinal used: Abourtifacient

Mode of preparation: Paste of five flowers is prepared and mixed with one teaspoon honey. 2 teaspoonful of this paste is taken every day in empty stomach for 3 days.

13. Botanical name: *Bombax ceiba* L.

Family: Malvaceae.

Vernacular name: Katesawar.

Parts used: Fresh seed

Ethno medicinal used: Abourtifacient.

Mode of preparation: Tablets are prepared from half teaspoon paste and taken twice a day for five days.

14. Botanical name: *Abutilon indicum* (L.) Sweet.

Family: Malvaceae.

Vernacular name: Petari.

Parts used: Whole plant.

Ethno medicinal used: Gynecology, Gonorrhoea, Abortion.

Mode of preparation: It is used to treat gonorrhoea and abortion. Root extract used for Syphilis.

15. Botanical name: *Sida acuta* Burm f.

Family: Malvaceae

Vernacular name: Bala or Chikna

Parts used: Leaf and Root

Ethno medicinal used: Female sterility

Mode of preparation: 10 ml leaf juice with 10 ml root decoction is given to cure impotency.

16. Botanical name: *Leucas aspera* Spreng.

Family: Lamiaceae

Vernacular name: Tumbi or Gopha.

Parts used: Fresh stem and root

Ethno medicinal used: Abortifacient

Mode of preparation: 15-20 cm long stem root is used for intra vaginal insertion for 20 minutes.

17. Botanical name: *Ocimum sanctum* L.

Family: Lamiaceae

Vernacular name: Tulas.

Parts used: Leaves.

Ethno medicinal used: Menstrual cycle.

Mode of preparation: Leaf juice is taken with Jiggery and cow milk to relieve pain after delivery.

18. Botanical name: *Vitex negundo* L.

Family: Lamiaceae

Vernacular name: Nirgudi

Parts used: Seed

Ethno medicinal used: Abourtifacient

Mode of preparation: Dried seed paste of *Solanum xanthocarpum* Schrad., fresh *Coccinia grandis* (L.) Voigt., stem dried seed of *Vitex negundo* L., *Caesalpinia pulcherrima* (L.) S.W., *Holarrhena antidysenterica* (L.) Wall., *Rubia cordifolia* L., fresh seed of *Ricinus communis* L., fresh seed of *Saraca asoca* (Roxb.) W.J.De., wild dried fruit of *Sapindus mukorossi* Gaertn are prepared separately and mixed in equal ratio. Tablets are then prepared from this mixture one tablets contains half teaspoon of the mixture one tablet daily after dinner for seven days.

19. Botanical name: *Datura metal* L.

Family: Solanaceae

Vernacular name: Dhotra

Parts used: Fresh root

Ethno medicinal used: Abourtifacient

Mode of preparation: Fresh root paste decoction is prepared and two teaspoon decoction is taken once a day for five days in empty stomach.

20. Botanical name: *Solanum xanthocarpum* Schrad.

Family: Solanaceae

Vernacular name: Kateringani.

Parts used: Seed

Ethno medicinal used: Abourtifacient

Mode of preparation: Dried seed paste of *Solanum xanthocarpum* Schrad., fresh *Coccinia grandis* (L.) Voigt., stem, dried seed of *Vitex negundo* L., *Caesalpinia pulcherrima* (L.) Sw., *Holarrhena antidysenterica* (L.)Wall., *Rubia cordifolia* L., fresh seed of *Ricinus communis* L., fresh seed of *Saraca asoca* (Roxb.) W.J.De. Willd., dried fruit of *Sapindus mukorossi* Gaertn. are prepared separately and mixed in equal ratio. Tablets are then prepared from this mixture one tablet daily after dinner for 15 days.

21. Botanical name: *Withania somnifera* (L.) Dunal.

Family: Solanaceae

Vernacular name: Ashwagandha

Parts used: Whole plant.

Ethno medicinal used: Menses

Mode of preparation: Seeds are used in pregnancy to control body temperature. Root powder is taken with milk or butter to treat leucorrhoea and pregnancy. It is also used to regulate the menstrual cycle.

22. Botanical name: *Citrullus colocynthis* (L.) Schrad.

Family: Cucurbitaceae

Vernacular name: Kadu Vrundavan

Parts used: Roots and Fruits.

Ethno medicinal used: Abourtifacient.

Mode of preparation: Root paste made with cow milk is applied on hypogastrium for early delivery.

23. Botanical name: *Momordica charantia* L.

Family: Cucurbitaceae.

Vernacular name: Karle.

Parts used: Seed.

Ethno medicinal used: Contraceptive.

Mode of preparation: Fresh seed paste is prepared and mixed with paste of *Stephania japonica* (Thunb.) Miers. Stem in equal volume. Tablets are then prepared from containing 1-2 teaspoon paste taken twice a day after completion of menstrual cycle to commencement of next menstrual cycle.

24. Botanical name: *Terminalia bellerica* Roxb.

Family: Combretaceae

Vernacular name: Behada

Parts used: Fruit

Ethno medicinal used: Contraceptive

Mode of preparation: A mixed paste fruit of along with *Terminalia chebula* Retz., *Phyllanthus emblica* L., *Terminalia bellerica* Roxb. are prepared from this mixture. Tablets are prepared. One tablets daily once for one month.

25. Botanical name: *Terminalia arjuna* (Roxb.) Wight. & Arn.

Family: Combretaceae.

Vernacular name: Arjun.

Parts used: Fruit.

Ethno medicinal used: Abortifacient.

Mode of preparation: Tablets are prepared from fresh fruit paste. One tablet contains 5 gm mixture tablets are dried for 1 a day 2 tablets twice a day in empty stomach for seven days.

26. Botanical name: *Terminalia chebula* Retz.

Family: Combretaceae

Vernacular name: Behada.

Parts used: Fruit.

Ethno medicinal used: Contraceptive.

Mode of preparation: A mixed paste fruit of along with *Terminalia chebula* Retz., *Phyllanthus emblica* L., *Terminalia bellerica* Roxb. are prepared from this mixture. Tablets are prepared. One tablets daily once for one month.

27. Botanical name: *Calotropis procera* (Aiton.) W.T.Aiton.

Family: Asclepiadaceae

Vernacular name: Rui

Parts used: Root

Ethno medicinal used: Contraceptive

Mode of preparation: Fresh root paste is prepared and then mixed with root paste of *Mimosa pudica* L. in equal ratio Tablets are Prepared from the paste mixture one tablets contains half teaspoon paste one tablet daily at empty stomach after completion of menstrual cycle.

28. Botanical name: *Calotropis gigantea* (L.) Ait. f.

Family: Asclepiadaceae

Vernacular name: Rui.

Parts used: Leave.

Ethno medicinal used: Abortion.

Mode of preparation: Fresh leaves are inserted in vagina to cause abortion up to 3 months.

29. Botanical name: *Ferula assafoetida* L.

Family: Apiaceae

Vernacular name: Hing.

Parts used: Latex

Ethno medicinal used: Contraceptive

Mode of preparation: Latex of *Ferula assafoetida* L. and dried powder of *Zingiber officinale* Roscoe Rhizome and dried juice is mixed with fresh *Hibiscus rosa sinensis* L. flower are mixed in equal ratio (Five

gram each) along with half teaspoon honey. One teaspoon of this mixture takes twice a day in empty stomach for 8 days.

30. Botanical name: *Daucus carota* L.

Family: Apiaceae

Vernacular name: Gajar.

Parts used: Seed.

Ethno medicinal used: Abortion.

Mode of preparation: Paste of seed is applied to vagina for abortion and to increase menses. Seed is given internally to pregnant women for abortion.

31. Botanical name: *Allium cepa* L.

Family: Alliaceae

Vernacular name: Kanda.

Parts used: Bulb.

Ethno medicinal used: Contraceptive

Mode of preparation: Bulb paste is prepared in combination with *Terminalia arjuna* (Roxb.Ex. DC.) Wight & Arn., Fruit bark and *Allium sativum* L. Paste in tablet form two tablets twice a day for 7 days.

32. Botanical name: *Allium sativum* L.

Family: Alliaceae.

Vernacular name: Lasoon.

Parts used: Bulb, Whole plant.

Ethno medicinal used: Contraceptive

Mode of preparation: Bulb paste is prepared in combination with *Terminalia arjuna* L. Paste in tablet form. Two tablets twice a day.

33. Botanical name: *Aloe vera* L.

Family: Alocaceae

Vernacular name: Korphad.

Parts used: whole plant.

Ethno medicinal used: Contraceptive

Mode of preparation: Dried juice is mixed with fresh flower of *Hibiscus rosa-sinensis* L., latex of *Ferula assafoetida* L. and dried powder of *Zingiber officinale* Roscoe., rhizome are mixed in equal ratio (10gms each) along with half tea spoon of honey.

For aboutifacient: Fresh leaves are dried for 1-2 days. It is then powder and mixed with water, two teaspoon, twice daily in empty stomach for three days.

34. Botanical name: *Annona reticulata* L.

Family: Annonaceae

Vernacular name: Ramphal

Parts used: Unripe fruit.

Ethno medicinal used: aboutifacient

Mode of preparation: Half teaspoon paste is taken with a cup of warm water, twice a day for five days.

35. Botanical name: *Azadirachta indica* A. Juss.

Family: Meliaceae

Vernacular name: Kadu Neem

Parts used: Stem bark and Seed.

Ethno medicinal used: Aboutifacient

Mode of preparation: Tablet from stem bark paste is prepared. One tablet contains half teaspoon paste, one tablet every day in morning empty stomach for ten days.

Tablets from fresh seed paste are prepared. One tablet contains half tea spoon of the paste. Two tablets take daily in empty stomach for seven days.

36. Botanical name: *Melia azadirachta* L.

Family: Meliaceae.

Vernacular name: Bakneem.

Parts used: Bark, Leaf, Seed and Fruit.

Ethno medicinal used: Gonorrhoea and Female sterility

Mode of preparation: Different parts of plant are powder along with Jaggery is taken orally. Gum is used to treat gonorrhoea.

37. Botanical name: *Eucalyptus globulus* Labill.

Family: Myrtaceae

Vernacular name: Nilgiri.

Parts used: Leaves, Oil and Stem.

Ethno medicinal used: Menses.

Mode of preparation: It is used to treat menstrual problems and menses.

38. Botanical name: *Carica papaya* L.

Family: Caricaceae

Vernacular name: Papai

Parts used: Seed

Ethno medicinal used: Contraceptive

Mode of preparation: Fresh or dried seeds paste is prepared two teaspoon paste decoction taken every day after menstrual period till commencement of next menstrual period.

39. Botanical name: *Cuscuta reflexa* Roxb.

Family: Convolvulaceae

Vernacular name: Amarvel

Parts used: Whole plant

Ethno medicinal used: Contraceptive

Mode of preparation: Fresh plant paste prepared separately and mixed with leaves paste of *Stephania japonica* (Thumb.) Miers. In equal volume and tablets are prepared from it one tablet contain half spoon paste. Two tablets twice a day in empty stomach for 15 days.

40. Botanical name: *Cyanodon dactylon* (L.) Pers.

Family: Poaceae

Vernacular name: Durva

Parts used: Whole plant

Ethno medicinal used: Abortifacient and Contraceptive

Mode of preparation: Abortifacient: Tablets are prepared from leaf paste one tablet contains one spoon of that paste two tablet twice daily for three days.

Contraceptive: 10gm fresh root is mixed with 10gm *Cyanodon dactylon*(L.) Pers. 5gm. fresh *Ricinus communis* L. Root paste decoction is prepared 5 ml. of this daily in empty stomach for seven days, after completion of menstrual cycle.

41. Botanical name: *Dioscorea bulbifera* L.

Family: Dioscoreaceae

Vernacular name: Kadu karanda, Air potato.

Parts used: Whole plant

Ethno medicinal used: Contraceptive, Abortifacient.

Mode of preparation: whole plant paste is prepared and mixed equally with *Ficus religiosa* L. leaves paste. Tablets are then prepared from the mixture and are tablets contain 1-2 teaspoon mixture and are taken twice a day till commencement of next menstrual cycle.

Abortifacient: when the above mentioned dose is taken by 3-4 months pregnant women for 4-5 days it act as abortifacient.

42. Botanical name: *Ficus religiosa* L.

Family: Moraceae

Vernacular name: Pipal

Parts used: Leaves

Ethno medicinal used: Contraceptive

Mode of preparation: Whole plant paste is prepared and mixed equally with *Ficus religiosa* L. leaves paste. Tablets are then prepared from the mixture and are tablets contains 1-2 teaspoon mixture and is taken twice a day till commencement of next menstrual cycle.

43. Botanical name: *Holarrhena antidysenterica* (L.) Wall.

Family: Apocyanaceae

Vernacular name: Kuda

Parts used: Seed

Ethno medicinal used: Abourtifacient

Mode of preparation: Dried seed of *Holarrhena antidysenterica* (L.) Wall., *Vitex negundo* L., *Caesalpinia pulcherima* (L.) Sw., *Rubia cordifolia* L., Dried seed paste of *Solanum Xanthocarpum* Schrad, Fresh *Coccinia grandis* (L.) Voigt stem., fresh seed of *Ricinus communis* L., fresh seed of *Saraca asoca* (Roxb.) W. J. De. Wilde dried fruit of *Sapindus mukorossi* Gaertn. are prepared separately and mixed in equal ratio. Tablets are then prepared separately from this mixture. One tablets daily after dinner for 15 days.

44. Botanical name: *Lawsonia innermis* L.

Family: Lytharaceae

Vernacular name: Mehendi

Parts used: Leaves

Ethno medicinal used: Contraceptive

Mode of preparation: Paste of fresh leaves is prepared and mixed with little amount of esabgul powder. Tablets are then prepared from half teaspoon mixture taken twice daily for 21 days from last menstrual period.

45. Botanical name: *Moringa oleifera* Lam.

Family: Moringaceae

Vernacular name: Mungana sheng.

Parts used: Root

Ethno medicinal used: Contraceptive

Mode of preparation: leaves paste is prepared and mixed with paste of fresh *Moringa oleifera* Lam. Root and in equal ratio. Half teaspoon mixture is used to prepared one tablets and is taken daily in empty stomach after completion of menstrual cycle.

46. Botanical name: *Phyllanthus emblica* L.

Family: Euphorbiaceae

Vernacular name: Awala

Parts used: Fruit

Ethno medicinal used: Contraceptive

Mode of preparation: A mixed paste fruit of along with *Terminalia chebula* Retz. *Phyllanthus emblica* L. *Terminalia bellerica* Roxb. are prepared from this mixture. Tablets are prepared. One tablets daily once for one month.

47. Botanical name: *Piper betle* L.

Family: Piperaceae

Vernacular name: Pan

Parts used: Stem

Ethno medicinal used: Abourtifacient

Mode of preparation: Stem paste decoction of *Piper betle* is prepared and one teaspoon decoction is taken daily once in empty stomach for 7 days.

48. Botanical name: *Plumbago zeylanica* L.

Family: Plumbaginaceae

Vernacular name: Chitraka

Parts used: Fresh root

Ethno medicinal used: Abourtifacient

Mode of preparation: 3-4 inch of long root is used as intravagial iservation device for 15 minutes.

49. Botanical name: *Ricinus communis* L.

Family: Euphorbiaceae

Vernacular name: Arandi

Parts used: Seed

Ethno medicinal used: Abourtifacient

Mode of preparation: 20 gm fresh seeds area paste is prepared two teaspoon seed paste decoction, twice daily for three days.

50. Botanical name: *Sapindus mukorossi* Gaertn.

Family: Sapindaceae

Vernacular name: Ritha

Parts used: Seeds

Ethno medicinal used: Abourtifacient

Mode of preparation: Dried seed paste of *Solanum xanthocarpum* Schrad. Fresh *Coccinia grandis* (L.) Voigt.. Stem dried seed of *Vitex negundo* L., *Caesalpinia pulcherrima* (L.) S.W. *Holarrhena antidysenterica* (L.) Wall. *Rubia cordifolia* L. Fresh seed of *Ricinus communis* L. Fresh seed of *Saraca asoca* (Roxb.) W.J De. Wild dried fruit of *Sapindus mukorossi* Gaertn are prepared separately and mixed in equal ratio. Tablets are then prepared from this mixture one tablets contains half teaspoon of the mixture one tablet daily after dinner for seven days.

51. Botanical name: *Thevetia peruviana* K. Schum.

Family: Apocyanaceae

Vernacular name: Hirda

Parts used: Seed.

Ethno medicinal used: Abourtifacient

Mode of preparation: Seed paste decoction is prepared one fourth tea spoon seed paste decoction with one teaspoon honey daily at morning for 2-3 days.

52. Botanical name: *Zingiber officinale* Roscoe.

Family: Zingiberaceae

Vernacular name: Adrak

Parts used: Rhizome

Ethno medicinal used: Contraceptive

Mode of preparation: Dried juice is mixed with fresh flower of *Hibiscus rosa-sinensis* L. Latex of *Ferula assafoetida* L. and dried powder of *Zingiber officinale* Roscope. rhizomes are mixed in equal ratio (10gms each) along with half tea spoon of honey.

53. Botanical name: *Convolvulus arevensis* L.

Family: Convolvulaceae

Vernacular name: Chandwel

Parts used: Whole plant

Ethno medicinal used: Menses and sexual debility.

Mode of preparation: One spoon of powder of plant along with milk takes early in morning.

54. Botanical name: *Cyperus rotundus* L.

Family: Cyperaceae

Vernacular name: Nagarmotha.

Parts used: Whole plant.

Ethno medicinal used: Menses and contraceptive.

Mode of preparation: Decoction is used to treat menstrual disorders and contraceptive.

55. Botanical name: *Eucalyptus globulus* Labill.

Family: Myrtaceae

Vernacular name: Nilgiri.

Parts used: Leaves, Oil and Stem.

Ethno medicinal used: Menses.

Mode of preparation: it is used to treat menstrual problems and menses.

44. Botanical name: *Ziziphus mauritiana* Lam.

Family: Rhamnaceae

Vernacular name: Bor.

Parts used: Leaves, Bark and seed.

Ethno medicinal used: Gynecological

Mode of preparation: Powder and decoction form is used to treat haemorrhage and leucorrhoea.

56. Botanical name: *Amaranthus spinosus* L.

Family: Amaranthaceae

Vernacular name: Kathemath.

Parts used: Root.

Ethno medicinal used: Menorrhagia, Gonorrhoea,

Mode of preparation: The paste of the root is used in the treatment of gonorrhoea.

57. Botanical name: *Asparagus racemosus* Willd.

Family: Asparagaceae

Vernacular name: Shatavari.

Parts used: Tuberos root

Ethno medicinal used: Menorrhagia.

Mode of preparation: Fresh tuber roots are crushed and 4 teaspoon full of expressed juice is mixed with sugar and taken 30 minute before food for seven days.

58. Botanical name: *Sesamum indicum* L

Family: Pedaliaceae

Vernacular name: Til.

Parts used: Seed.

Ethno medicinal used: Abortion

Mode of preparation: Seed soaked overnight and filter the water drinking daily for 3 days it causes abortion up to 3 months pregnancy.

59. Botanical name: *Andrographis paniculata* Wall. Ex. Nees.

Family: Acanthaceae

Vernacular name: Kalamegha.

Parts used: Whole plant

Ethno medicinal used: Menstrual disorder.

Mode of preparation: Powder of different parts are mixed with hot water to drink orally.

60. Botanical name: *Raphanus sativus* L.

Family: Brassicaceae

Vernacular name: Mula.

Parts used: Seed.

Ethno medicinal used: Menses.

Mode of preparation: Seed are given orally to increase menses to purify Womb and for abortion.

61. Botanical name: *Achyranthes aspera* L.

Family: Amaranthaceae.

Vernacular name: Kutra.

Parts used: whole plant.

Ethno medicinal used: Contraceptive

Mode of preparation: Half teaspoon paste as tablet form twice a day for seven days in empty stomach.

62. Botanical name: *Adhadatoda vasica* Nees.

Family: Acanthaceae

Vernacular name: Adulsa.

Parts used: Leaves.

Ethno medicinal used: Menstrual cycle.

Mode of preparation: Decoction of 3-5 leaves mixed with 1gm seeds each of *Daucus carota* and *Raphanus sativus* is taken to regulate menstrual cycle.

63. Botanical name: *Cardiospermum halicacabum* L.

Family: Sapindaceae

Vernacular name: Kapalphodi.

Parts used: Leaf.

Ethno medicinal used: Menstrual cycle.

Mode of preparation: Leaf extract is taken to relive menstrual disorder and irritable uterus.

64. Botanical name: *Mimosa pudica* L.

Family: Mimosaceae

Vernacular name: Lajalu.

Parts used: Whole plant.

Ethno medicinal used: Abortifacient.

Mode of preparation: fresh root paste is prepared and then mixed with root paste of *Mimosa pudica* L. in equal ratio. Tablets are prepared from the paste mixture one tablet contains half teaspoon paste. 1 tablet takes daily at empty stomach after completion of menstrual cycle.

Table:1 Plant part used in the gynecological diseases.

Part used	Number of plants
Stem	04
Root	13
Leaves	12
Whole plant	13
Flower	03
Rhizome	01
Bark	03
Seed	20
Bulb	02
Latex	01
Fruit bark	02
Gum	01
Oil	01
Fruit	11

Result and Discussion:

In the present survey, a total 65 plant species belonging to 58 genera and 36 families were recorded. Out of these plant species, 28 (45.16%) belonging to herbs, 20 (32.25%) trees and 19 (30.64%) shrubs. For each species scientific name, family, local name, parts used, ethnomedicinal use and mode of preparation were recorded. The most frequently used species for the treatment of gynecological diseases are *Abrus precatorius*, *Achyranthes aspera*, *Aloe vera*, *Alium cepa*, *Bombax ceiba*, *Daucus carota*, *Erthrina variegata*, *Ficus religiosa*, *Adhatoda vasica*, *Phyllanthus emblica*, *Ricinus communis*, *Terminalia chebula*, *Terminalia arjuna* and *Ziziphus mauritiana*.

Use of plant parts as medicine shows variation (Table -1). Women of the region mostly used Seed (32.25%), Whole plant (20.96 %), Roots (20.96%), Leaves (19.35%), Fruit (17.74%), Stem (6.45%), Flower (4.83%), Bark (4.83%), Bulb (3.22%), Latex (1.61%), Rhizome (1.61%), Gum (1.61%) and Oil (1.61%). Distribution of plant species in the families shows variation. The family Fabaceae represented by 06 species, followed by Family Caesalpiniaceae, Malvaceae, and Lamiaceae each with 04 species each, followed by Family Cucurbitaceae and Combretaceae each with 02 species each, Followed by Amaranthaceae, Alliaceae, Meliaceae, Asclepiadaceae, Convolvulaceae, Apiaceae, Apocyanaceae, Mimosaceae, Euphorbiaceae, Sapindaceae and Acanthaceae each with 02 species, followed by Alocaceae, Annonaceae, Bombacaceae, Caricaceae, Poaceae, Dioscoreaceae, Moraceae, Lythraceae, Moringaceae, Piperaceae, Plumbaginaceae, Myrtaceae, Asparagaceae, Zingiberaceae, Cyperaceae, Rhamnaceae, Pedaliaceae and Brassicaceae. The survey indicated that the common medicinal plant families in the study area are Acanthaceae, Amaranthaceae, Apiaceae, Bombacaceae, Caricaceae, Combretaceae, Cucurbitaceae, Euphorbiaceae, Fabaceae, Lamiaceae, Liliaceae, Moraceae, Solanaceae.

These observation are well supported by previous studies of Jain, S.K. (1991), Kirtikar, K.R., Basu, B.D. (1982), Yadav, J. P., Suresh Kumar & Priyanka Siwach (2006), Tripathi Rakesh, Dwivedi, S.N. and Dwivedi Sumeet (2010), Banani Das, Anupam Das Talukdar, and Manabendra Dutta Choudhury. (2014), RahmanMahbubur A. H. M. (2014), Zahra Sadeghi and Adeel Memood (2014), S. Balamurugan, S. Vijayakumar, and J.E. Morvin Yabesh (2017), Muhammad Abdul Aziz, Amir Hasan Khan, Habibllah, Muhammad Adnan, Abeer Hashem, Elsayed Fathi Abd Allah (2018) R. Rajeswari and S. Murugesh (2019), Maria Charlianne de Lima Pereira, Monaliza Ribeiro Mariano, Nathanael de Souza (2019). Khafsa Malik, Mushtaq Ahmad, Munir Ozturk, Volkan Altay, Muhammad Zafar, Shazia Sultana (2021)

Conclusion: The present findings are the first record of Ethnogyneological study of traditional medicinal plants used by tribals of Wardha district of Maharashtra state. A total of 65 plant species under 58 genera and 36 families have been documented which are used for the treatment of gynecological diseases. The present study may be a preliminary contribution to the medicinal knowledge of this area using standard research methods, focusing on medicinal plants and their local uses for the healthcare. This healthcare knowledge transmitted orally from one generation to generation. The study also suggested that the preset information on gynecological use of medicinal plants by the tribals may be used for botanical and pharmacological research in future for the development of new sources of drugs.

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