

# Medicinal plants used by Konkana tribals of Nashik District Maharashtra, during pregnancy

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## Abstract-

The importance of trees and plants in our life are inexhaustible. They provide us food, shelter, clothing, medicine. They are lungs of our planet. They are blessings to our world. They possess power of healing. Plants play an important role in the discovery of new drugs and many blockbuster drugs are derived either directly or indirectly from plants. Tribal people occupy a larger part of Indian culture & society. Herbal medicines have great demand due to their permanent effect & little or no side effects. In India indigenous system of medicine (Ayurveda, Siddha, Unani) have been well established.

Nashik district (Maharashtra) has rich flora in its varied type of forests. The Konkana tribals reside in Nashik district. The field trips in these areas were carried out during intervals in Dec. 2016 to June 2017. The ethno botanical survey revealed use of 12 plants species belonging to different families as a remedy during pregnancy, present paper deals information after discussion with local lady vaidus and collected data is scientifically tabulated and analyzed.

**Keywords – Medicinal Plants, Konkana Tribe, Woman, Pregnancy.**

## Introduction-

India is having wide variety of plants with unique medicinal value. Human societies

and plants are closely related with each other. Medicinal plants are used to provide health security to rural people throughout the India. According to WHO, over 80% of people in developing countries depend on traditional medicines for their primary health need. Herbal medicines are used in primary health care because of their great efficacy and little or no side effects. In India, the indigenous system of medicine namely Ayurvedic, Siddha and Unani have been in existence for several centuries. This traditional system of medicine together with Homeopathy and Folklore medicine play a significant role in the health care system of Indian population.

In India about 3000-3500 medicinal plants are used as a herbal drugs out of 20,000 medicinal plants. About 90% of these are found growing wild in different climatic regions of the country.

Most of the areas of Nashik district is occupied by hilly region which have rich with diversity of vegetation mostly tribal and rural communities, depending on plant resources for their day to day life, The rural communities are well practiced with traditional knowledge and are using various parts of major, minor plants and tree species extensively for health care and other purposes. These tribal women are uneducated and due to less income, not awareness about health, nutrition and care during pregnancy. The use of herbal medicine during pregnancy is varied across region to region. Herbal medicine may be used for maternal care and related with the pregnancy problem which are useful to improve the quality of the health of the mother and unborn child. These traditional medicine are mainly used for to cure urinary tract infections, vomiting,

nausea, gastro intestinal problems, prevention of anemia for relieving stress for prevention of miscarriage for improvement of better health of fetus.

The present study, therefore intended to emphasize 12 ethnomedicinal plant species belonging to 11 families with their local name of plant parts used as medicine in Deola, Kalwan and Surgana regions in Nashik District of Maharashtra.

### **Martial and methods-**

An ethnobotanical survey was carried out during December 2016 to June 2017 for collection of information on medicinal plants used by konkana women during pregnancy from the different regions of Nashik District in Maharashtra. During several visits vaidu woman were contacted and with the prepared questionnaire and discussion with them the ethnobotanical data was recorded in a particular format.

The medicinal plants and their information collected during the survey were properly identified with help of floras preserved in the form of herbarium. The recorded data compared with Study of Dwivedi (2004), Jain (1991), Verma et.al. (1995), Maheshwari et. al. (1986) etc. During the study total number of 18 tribes were observed (Ref. Gazetteer of India, Maharashtra State, Rev. February, 5th, 2016) were visited which are spread in the Tahasils like Peth, Surgana, Igatpuri, Trambakeshwar, Kalwan, Dindori, Deola and Niphad.

### **Results and Discussion-**

The present study includes information about 12 plants belonging to 11 families which are commonly used by tribal people for regular remedies.

The traditional systems of medicine together with Homeopathy and folklore medicine continue to play significant role in the health care system of population. The tribal population of India mostly dependent on use of medicinal plants therapy for the health care needs. The present work has attracted the potential use of several medicinal plants during pregnancy. The practice Aurvedic medicines recorded in Sanskrit by legendary figures of Indian medicine, like Charka, Sushruta, Nagarjuna, Atreya and Jeevaka. India has 15% of medicinal plants out 20,000 medicinal plants of the world. Well-known medicinal plants of India and their uses have been recorded in the important Indian medicinal plants' literatures (Kirtikar and Basu, 1935, Chopra et. al 1956, Jain, 1991 & 1993, Chaudhari et. al. 1989, Trivedi, 2002, Binu et. al 1992, Rastogi and Mehrotra, 1993). Total 62 medicinal plants used in Homeopathy and Ayurvedic preparations (Kulkarni D. K. and Upadhye A. S; 2007).

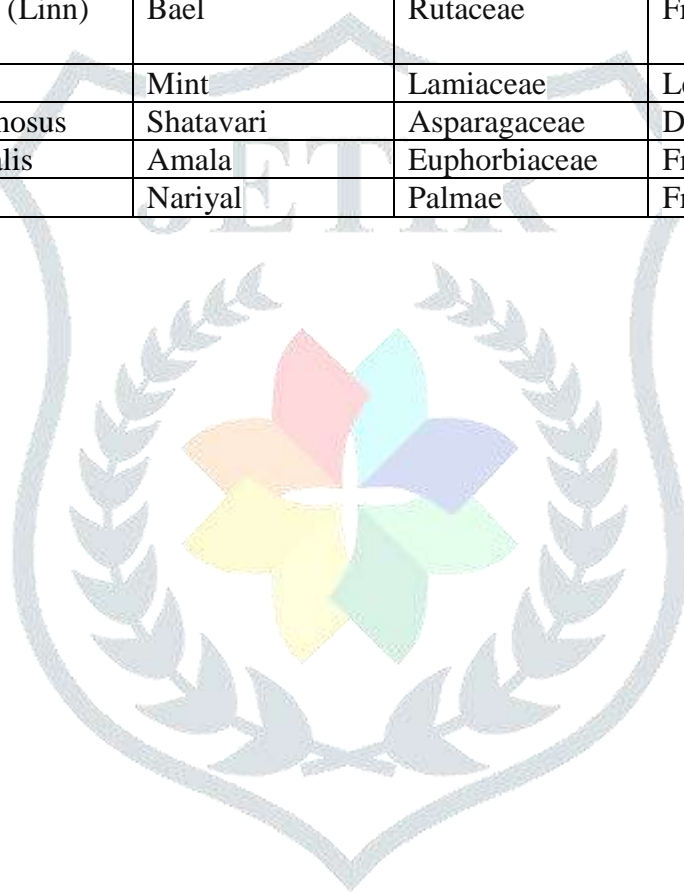
Ethnomedicinal study was conducted to document the indigenous medicinal plant knowledge used by traditional healers in South-Western Ethiopia (Haile Yineger, Delenasaw Yewhalaw and Demel Teketay, 2008). 173 herbal plants with respect to local plant name, family use, plant parts used in different ailments by tribal local community of Jhunjhunu District of Rajasthan (Sharma O. P. et.al. 2007). Tribal people have lack scientific knowledge use the medicinal plants because they suffers from nutritional and health problems due to malnutrition, lack of educational facility and job opportunities (Sonowal C. J. 2010). 26 number of antipyretic plant species belonging to 20 families and 23 genera have been recorded (Manbendra Dutta Chaudhari, Meenakshi Bawari, L. Shyamali Singha 2010).

The study of Conservation of Ethno-medicinal plants of Mangrove forest in North Sumatra with conservation of total 48 medicinal plants, belonging to 23 families were studied by Onrizal and Mashhor Mansor, 2010.

After the discussions with Vaidus & local people it has been found that the use of locally available medicinal plants during pregnancy used very common and traditional. In the present article, total of 12 different medicinal plants & their uses have been discussed.

Table- 1. Commonly used Medicinal plants in Deola- Kalwan Region by Vaidus




Sr. no.	Botanical Name	Common Name	Family	Part Used
1	Zingiber officinale Rosc.	Aale, Adaraka	Zingiberaceae	Dry and fresh Rhizome
2	Allium sativum	Lasun , Garlic	Amaryllidaceae	Bulb
3	Cucurbita papo L.	Pumpkin	Cucurbitaceae	Fruit
4	Trigonella foenum-graecum	Fenugreek	Fabaceae	Seed, Leaves
5	Ocimum	Tulsi	Lamiaceae	All parts
6	Azadirachta indica A. Juss.	Neem	Meliaceae	All parts
7	Aloe vera	Korphad	Liliaceae	Leaf
8	Aegle marmelos (Linn) R. Br.	Bael	Rutaceae	Fruit
9	Mentha piperita	Mint	Lamiaceae	Leaves
10	Asparagus racemosus	Shatavari	Asparagaceae	Dried roots
11	Emblica officinalis	Amala	Euphorbiaceae	Fruits
12	Cocos nucifera	Nariyal	Palmae	Fruit





## 1. Zingiber officinale Rosc.-



1. The bleed supply is boost towards fetus.
2. Immune system becomes strong.
3. It helps for providing relief from nausea and morning sickness.
4. To consume Ginger helps for absorbing nutrients from food.
5. Ginger helps for keeping blood sugar at normal level.
6. Taking ginger before bed time minimize indigestion, gas and bloating.

	7. Ginger is useful for fighting the acid which cause heartburn during pregnancy
2. <i>Allium sativum</i>	
	<ol style="list-style-type: none"> <li>1. Garlic is useful as a source of nutrients, vitamins and minerals for the body.</li> <li>2. It is antibacterial, antiviral due to presence of allicin fights with germs and viruses.</li> <li>3. It balances different hormones.</li> <li>4. Lowers cholesterol level and the risk of heart problem.</li> <li>5. Lowers the risk of cold or flue and keep the baby healthy.</li> <li>6. Antimicrobial property inhibits skin infection or even skin or mouth infection.</li> <li>7. Allicin which is rich in garlic prevent hair loss and also promote the growth of new hair.</li> <li>8. Eating garlic is useful from minimizing dizziness and vomiting sensation during pregnancy.</li> </ol>
3. <i>Cucurbita papo L.</i>	
	<ol style="list-style-type: none"> <li>1. Eating pumpkins is rich source protein, carbohydrates, iron, calcium, niacin and phosphorus.</li> <li>2. The sweet vegetable prepared from pumpkin is useful for reducing the blood sugar level.</li> <li>3. Consumption of pumpkin reduce eczema flare-ups and soothe abdominal cramps.</li> <li>4. Pumpkin seeds are used as digestive cleanser reduces the risk of stomach infection.</li> <li>5. Pumpkin seeds contains magnesium important for growth of fetus bones and teeth.</li> <li>6. The seed contain high percentage of zinc Which are helpful as immune boosting mood balancing mineral.</li> </ol>
4. <i>Trigonella foenum-graecum</i>	
	<ol style="list-style-type: none"> <li>1. Consumption of fenugreek during pregnancy increases milk production.</li> <li>2. Consumption of fenugreek is helpful for stabilies sugar levels.</li> <li>3. It is a natural fortifier for the immune system, it is useful for increasing immune system, and used as a cleanser.</li> <li>4. It helps for enlargement of breast size during pregnancy.</li> <li>5. Seeds are good for fiver, vomiting, cough and bronchitis.</li> <li>6. Leaves are having cooling, refrigerant, anti-inflammatory and laxative.</li> <li>7. Leaves are good for burning sensation, constipation, swelling and burns.</li> </ol>

<p>5.Ocimum</p> 	<ol style="list-style-type: none"> <li>1. Ocimum (Basil) contains vitamin A it promotes the development of fetus, eyes, lungs, heart and the central nervous system.</li> <li>2. It contains manganese which is helpful for formation of bones and cartilage of fetus.</li> <li>3. Manganese is useful for minimizing stress in women which is best antioxidant reduces the risk of cell damage in pregnant woman.</li> <li>4. Holy basil is helpful for increase the blood supply to the fetus.</li> <li>5. Basil is beneficial for preventing birth defects in baby.</li> <li>6. Basil is source of iron which helps to increase the haemoglobin and red blood cells count in pregnant women which reduces risk of anemia.</li> <li>7. Basil is rich source of vitamin C, vitamin E, niacin, riboflavin etc. and minerals like phosphorus , copper, zinc, potassium, magnesium which enhances development of baby and protect the unborn baby from infection.</li> <li>8. Basil is helpful for reducing stress and blood sugar level. It is good remedy for cold and flue useful for increase the power of lungs.</li> </ol>
<p>6.Azadirachta Indica A. Juss.</p> 	<ol style="list-style-type: none"> <li>1. Parts of neem plant are used externally as a healing agent.</li> <li>2. Paste of neem use is applied on the stomach for reducing stretch marks during pregnancy.</li> <li>3. Neem leaf paste is having bacteriacidal, germicidal, mosquito-repellent properties so pregnant women sooth neem bath during the monsoon season for fight with bacteria and germs.</li> <li>4. Neem oil massage is beneficial during pregnancy it relieves the itchiness.</li> <li>5. Neem products are helpful for minimizing skin problems during pregnancy.</li> <li>6. Neem plant is better air purifier the area around the plant becomes energetic and aesthic.</li> </ol>

7. Aloe vera	
	<ol style="list-style-type: none"> <li>1. Juice of aloe vera used as laxative which shows bowel movement for constipation.</li> <li>2. It is rich in vitamins and minerals and taken as supplementary nutrients in the diet.</li> <li>3. It is natural moisturizer for dry and itchy skin which keeps the skin soft and smooth.</li> <li>4. It is helpful for increasing blood circulation to the fetus and improves tissue growth in the mother.</li> <li>5. Aloe vera is immunity booster lowers the fever and fights the viruses.</li> <li>6. It is helpful for controlling blood sugar level in patients who have type two diabetes.</li> <li>7. Aloe vera juice having soothing effect to the stomach and intestine which minimize morning sickness.</li> </ol>
8. Aegle marmelos (Linn) R. Br.	
	<ol style="list-style-type: none"> <li>1. Fruit contains potassium which is helpful for balancing level of fluids in the body.</li> <li>2. During pregnancy it is very important to keep the level of fluid and electrolytes.</li> <li>3. It also helps in sending nerve impulses.</li> <li>4. The fiber content in fruit is useful for constipation. The fruit is rich in high fiber and easy to digest.</li> <li>5. The fruit have strong antimicrobial and antifungal properties which help for fighting the infections in the body.</li> <li>6. It is rich source of antioxidant, it reduce blood pressure, inflammation.</li> <li>7. Wood pulp can be used in to cure gastric alcer .</li> </ol>
9. Mentha piperita	
	<ol style="list-style-type: none"> <li>1. For the morning sickness and nausea in pregnant women if the fresh mint leaves are chewed gives relief.</li> <li>2. Consumption of mint leaves are helpful to soothe the stomach and keep the digestive track in proper way and avoids acid reflex issue.</li> <li>3. Fresh mint leaves are used as a remedy on tiredness, it can soothe the mind reduced irritability and relives tiredness. It also helpful to keep insomnia and anxiety.</li> <li>4. It is useful to control vomiting.</li> <li>5. It reduces the risk of preeclampsia.</li> <li>6. It reduces urinary tract infection.</li> <li>7. It controls cold, cough and respiratory tract infection.</li> </ol>

10. *Asparagus racemosus*

1. It is used as a medicine from the ancient time. The phytochemicals present in it are immunostimulatory, antitumor properties in it.
2. It possess plenty of folic acid which is useful for the development of fetus.
3. Shatavari playing a important role for natural development of the fetus. It helps for the formation of new cells reduces the chances of heart problem.
4. Use of shatavari for development of strong immune system to fight against new infections and speedup recovery.
5. Shatavari is rich source of calcium which is useful for the development of teeth and bones and proper functioning of the body.
6. Shatavari is rich source of vitamin C which prevent viral infections.
7. Vitamin B6 present in shatavari useful for boosting of immune system. Prevents nausea and morning sickness, regulates the blood pressure.

11. *Emblica officinalis*

1. Amla is rich source of vitamin C, helps for fighting with infections of common flue, urinary tract which are common during pregnancy.
2. High fiber content in amla regulates bowel movement and prevents constipation during pregnancy.
3. It is helpful for controlling the feeling of nausea, reduce morning sickness and shows the energy boosting activity.
4. Amla is rich in antioxidant which are helpful for fleshing out radicals and toxins on the body.
5. Consuming amla juice is helpful for increasing the babies memory power.
6. The vitamin C which is present in the food promotes oral health during pregnancy, it prevents bad breath or bleeding gums and prevents tooth decay.
7. It is helpful for reducing the risk of developing gestational diabetes during pregnancy.

## 12. Cocos nucifera



1. Coconut water contains potassium, sodium, magnesium all important minerals to battle with morning sickness, it also prevents dehydration and prevents nausea.
2. Raw coconut contains healthy fats which are needed during pregnancy and helpful for milk production, it prevents fatigue increases immunity, blood circulation, prevents dehydration and boost the energy.
3. Coconut milk rich in iron prevents anemia.
4. Coconut water during pregnancy used for boosting the immunity, improves the function of kidney, prevent urinary tract infections and helpful for lowering high blood pressure level.
5. It helps to improve the process of digestion, prevents constipation, it is a natural acid neutralizer prevents heart burn during pregnancy.
6. Coconut water contains zero cholesterol, it prevents accumulation of excess fat cells and keeps the body hydrated all time.
7. It contains low calories, some amount of dietary fibres, healthy omega fatty acids helpful for pregnant woman to maintain the weight.

### References-

- 1-Trivedi P.C.( 2002) "Ethnomedicinal Plant Of India" Aavishkar Publ. Distributors, Jaipur.
- 2- District Census Handbook Nashik, Census Of India, The Maharashtra Census Directorate, 1995.
- 3- Almedida M. R. (2003) Flora of Maharashtra V. 4 (Orient Press, Mumbai)
- 4- Sharma B. D. & Laxminarsimhan P.(1986) Ethnobotanical Studies On The Tribals Of Nashik District. Maharashtra J. Econ. Tax. Bot. 8 (2) PP. 439-454.
- 5- Kirtikar, K.R. Basy, B.D. (1935) "Indian Medicinal Plants", Vol-1-4 Second Edition Lalit Mohan Basu Publ. New Delhi.
- 6- Jain S. K. (1991) "Dictionary of Indian Folk Medicine And Ethnobotany", Deep Publ. New Delhi.
- 7- Naik V. N. (1998) Marathwadyateel Samanya Vanaushdi, Amrut Prakashan, Aurangabad
- 8- Schultes R. E. (1962). The Lore of The Ethno Botanist In Search For New Medicinal Plants. Lloydia V. 25, PP. 257-366.
- 9- Jain S. K. (1981) Glimpses of Indian Ethnobotany, Oxford & IBH Publication, New Delhi.
- 10- Binu, S., Nayar T.S. and Pushpagandan, P.(1992): An outline of ethnobotanical research in India; Jour. Eco. Taxon. Bot (additional series) 10, 405-428.
- 11- Chaudhari, B.; Dasgupta, D. and Chatterjee (1989): Tribal Medicine, Regional Research and study centre, West Bengal
- 12- Chopra, R.N.; Chopra I. C. & Verma B.S. (1956): Supplement to the Glossary to of Indian Medicinal Plants, Published and Information Directorate, CSIR, New Delhi.



- 13- González JA, García-Barriuso M, Amich F (2010): Ethnobotanical study of medicinal plants traditionally used in the Arribes del Duero, western Spain, *J Ethnopharmacol.* 2010 Sep 15; 131 (2):343-55.
- 14- Haile Yineger, Delenasaw Yewhalaw and Demel Teketay (2008): Ethnomedicinal plant knowledge and practice of the Oromo ethnic group in southwestern Ethiopia, *Journal of Ethnobiology and Ethnomedicine* 2008,4:11
- 15- Himanshu Sharma and Ashwani Kumar (2011): Ethno botanical studies on medicinal plants of Rajasthan (India): A review, *Journal of Medicinal Plants Research* Vol. 5(7), pp. 107-1112, 4 April, 2011.
- 16- Lenin Bapuji j. and S. Venkat Ratnam (2009): Traditional Uses of Some Medicinal Plants by tribals of Gangaraju Madugula Mandal of Visakhapatnam District, Andhra Pradesh, *Ethnobotanical Leaflets* 13: 388-98 , 2009.
- 17- Jain, S. K.(1991): Dictionary of Indian folk medicine and ethnobotany, Deep Publ., New Delhi.
- 18- Kirtikar, K. R. & Basu, B.D.(1935): Indian Medicinal plants, Vol.1-4 second edition, Lalit Mohan Basu Publ., New Delhi.
- 19- Kulkarni D.K. and Upadhye A.S. (2007): Human Resources Development in Tribal areas of Maharashtra through potential medicinal plants, *Ethnomedicinal plants of India* edited by P.C. Trivedi, Aavishkar Publ., Distributors, Jaipur pp. 255-267.
- 20- Madhuri Sharma and Pandey Govind (2009): Ethno medicinal plants for prevention and treatment of tumours, *Int. Journ. Of Green Pharmacy*, Year: 2009, Volume: 3 Issue 1, Page- 2-5 Maharashtra, *Ethno Med*, 4(1): 21-36 (2010).
- 21- Manabendra Dutta Choudhury, Meenakshi Bawari, L. Shyamali Singha (2010): some Antipyretic Ethnomedicinal Plants of Manipuri community of Barak Valley, Assam, India, *Ethno botanical Leaflets* 14: 21-28, 2010.
- 22- Meena K.L. and Yadav B.L. (2007): Some Ethnomedicinal plants of Rajasthan, *ethnomedicinal plants of India* edited by P.C. Trivedi, Aavishkar Publ., Distributors, Jaipur pp. 33-44.
- 23- Nath, Subhan C. and Borah, Tulsi (2007): Folklore medicinal uses of some plants in Golghat District of Assam, *Ethnomedicinal plants of India* edited by P.C. Trivedi, Aavishkar Publ., Distributors, Jaipur pp. 51-59.
- 24- Onrizal and Mashhor Mansor, (2010): Ethnobotanical Study of Medicinal Plants from Mangrove Forests in North Sumatra, Indonesia, *WETECOL @ (Wetland Ecologist)*,
- 25- Patil D.A. (2007): Anti-inflammatory plants in Khandesh region of Maharashtra, *Ethnomedicinal plants of India* edited by P.C. Trivedi, Aavishkar Publ., Distributors, Jaipur, pp. 268-274.
- 26- Rastogi, R. P. and Mehrotra, B.N. (1993): *Compendium of Indian Medicinal Plants*, Vol. II, CSIR, New Delhi.
- 27- Survase S.A. and S.D. Raut (2011): Ethnobotanical Study of some Tree Medicinal Plants in Marathwada, Maharashtra, *Journal of Ecobiotechnology*, Vol 3, No 2 (2011).
- 28- Sarkar S. and Sarma C.M. (2007): Ethnomedicinal plants used by muslims of Barpeta District of Assam, *Ethnomedicinal plants of India* edited by P.C. Trivedi, Aavishkar Publ., Distributors, Jaipur pp.67-76.
- 29- Sharma, O.P., Pareek, Aparna; Sharma Neelu and Pareek L.K.(2007): Medicoethnobotanically important plants of Jhunjhunu, Rajasthan, *Ethnomedicinal plants of India* edited by P.C. Trivedi, Aavishkar Publ., Distributors, Jaipur pp. 367- 391.
- 30- Sonowal C.J. (2010): Factors Affecting the Nutritional Health of Tribal Children in Maharashtra, *Ethno Med*, 4(1): 21-36, 2010.
- 31- Trivedi, P. C. (2002): Ethnomedicinal plants of Rajasthan state, India, *Ethnobotany*, Aavishkar Publ., Distributors, Jaipur pp. 412-439.
- 32- Studies on plants used in traditional medicine by bhilla tribe of Maharashtra:-S.Y.Kamble, S.R.Patil, P.S.Sawant, Sangita Sawant, S.G. Pawar & E.A. Singh.
- 33- Rupali N. Agme, Vaishali N. Agme.: Study of tribal medicinal plants of Maharashtra
- 34- Dr. Ramesh Kumar Bhutya (2011) : *Ayurvedic Medicinal Plants of India*, Scientific publishers(India), Vol.- 2.

- 35- S.G.Joshi (2003): Medicinal Plants, Mohan Pramlani for Oxford & IBH publishing Co. Pvt.Ltd. New Delhi.
- 36- P.C. Trivedi (2007) : Ethnomedicinal Plants of India , Avishkar Publishers, Distributors, Jaipur.
- 37- Dr. Nirmal Sharma, Dr. Yogeshwar Sharma, Mrs. Partibha Nand, Dr. Shanta Mehrotra (2010-11) : Medicinal Plants, Birla Publications Pvt. Ltd.

