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***Research Paper***

**CONTRACEPTIVE AND ABORTIFACIENT PLANTS AND RELATED  
INDEGINOUS KNOWLEDGE OF THE TRIBES OF GUJARAT STATE**

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**Abstract**

The paper deals with the indigenous knowledge of contraceptive and abortifacient plant species used by the tribal population of Gujarat state. Scientific names, local names, family names, plant parts used and modes of administration of 22 plant species used for female contraception or abortification, have been mentioned in the present paper. The facts presented here are outcome of various field excursions made during past twenty months.

Key words: indigenous knowledge, contraceptive plants, abortifacient plants, tribal population, Gujarat state.

**INTRODUCTION**

Gujarat lies on the west coast of India, between 20° 6' to 24° 42' latitude, and 68° 10' to 74° 28' longitude, divided into 33 districts. Geographic area of the state is 1,96,022 km<sup>2</sup> which constitutes 5.96% of the total country's geographical area. Recorded forest area of the state is 18,927 km<sup>2</sup> which is 9.66% of the total geographical area of the state. Due to the varied geographic and climatic conditions, Gujarat has very diverse vegetation. The northern semi-arid zone of Gujarat is majorly covered with scrub forest. Forests of Central Gujarat are dry deciduous. South Gujarat is known to have dense moist deciduous forest.

According to the Census 2011, population of Gujarat state is 60,383,628.00 whereas 23% of the population is tribal; which is divided into groups like *Bhil*, *Dhanka*, *Dubla*, *Gamit*, *Garasiya*, *Halpati*, *Jatt* (Muslim tribal group), *Kharva*, *Koli*, *Konkana*, *Kunbi*, *Nayakda*, *Rathva*, *Varli*, *Vasava*, *Vasava* etc. They are major inhabitants of Banaskantha, Dahod, Dang, Narmada, Navsari, Panchmahal, Sabarkantha, Surat, Tapi, Vadodara, Valsad districts. Almost 93% population of Dang district belongs to *Bhil* and other major tribal groups. All these ethnic groups are outstandingly expert of living in harmony with their surrounding nature and they possess immense knowledge.

Tribal people, especially the elder members of the groups and the faith healers have a great legacy of knowledge for treating people suffering from various ailments, using natural resources found in their surroundings itself and the doses are also standardized person by person by experience. Plants used for contraception in female is a common practice in tribal women. Generally the elderly tribal midwives are expert in this regards. The present data is an outcome of various field excursions made in past 20 months to 43 various villages from 11 different districts of the state.

## METHODOLOGY

Frequent field excursions were conducted in past 20 months to 43 various villages located in 11 different districts of the state. The information are collected through personal and group interactions with the local tribal inhabitants, especially the tribal midwives. Necessary information on plantspecies used and mode of administration were carefully recorded. The plantspecies used for contraception were collected and identified with the help of different floras[1,2].Information was compared with previous documentations/reports for the authenticity of the work[3-11]. The plant parts used may vary or the process may differ but the uses remain the same.

## RESULT AND DISCUSSION

In the present paper, total 22plant species belonging to20 families of angiosperms found in the surroundings of the forest dwellers of the state and used as contraceptive and abortifacient were recorded. Plant used as abortifacients and for contraception has their distinctly different mode of administration. Plants which are used for contraception are consumed within a very short period of time of an intercourse. The properties within the plants might be checking the process of egg fertilization. Whereas, the plants which are used as abortifacients have a very complex process to decide the doses. A complete menstruation cycle indicates that a lady is not pregnant and the next cycle can be predicted from the last dates of her mensuration cycle. The doses mentioned here are to be taken on the said days of that predicted mensuration cycle which will cause abortification.

1. *Abrus precatorious* L (Chanothi–Fabaceae): Seeds are used as abortifacient. Take 2 seeds and remove seed coats. Crush and consume it on the 2<sup>nd</sup> day of menstruation.
2. *Alangium salviifolium* (Ankol– Alangiaceae): Fresh stem bark is used as abortifacient. Almost 200gm fresh bark is soaked overnight in almost 1ltr water. Boil it on the next day morning till it gets reduced to half. Filter and store in cool and dry place. Give it on the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> and 8<sup>th</sup> day of mensuration.
3. *Annona reticulate* Linn (Ramfal–Annonaceae): Seeds are used for contraception. Crush 2 seedswith a very little amount of water andgive it to the lady within 2days of an intercourse.
4. *Avicenia marina* (Tivar–Avicenniaceae): Stem bark is used as abortifacient. Crush dried stem bark to fine powder. Take almost 20gm with empty stomach on all five days of menstruation cycle.
5. *Azadirachta indica* A Juss(Limdo–Meliaceae): Fruits are used as abortifacient. 5gm of dried fruit powder is given for 7days from the very first day of the mensuration cycle. Seed powder also gives the same result. Avoid over consumption as it generally causes vomiting.
6. *Cardiospermum helicacabum* L (Sapindaceae): Seeds are used as abortifacient. Crush a seed with a little amount of water and take it every night for five nights with a gap of 2hour after dinner.
7. *Carica papaya* L(Papaya– Caricaceae): Seeds and unripen fruits are used as abortifacient. Unripen fruits is peeled and soaked in water for 15min to remove extra latex. Grate the fruit and add some black paper or chili powder and a pinch full of salt. Take almost 100gm for 3days of menstruation. Seeds are also used for the same purpose. Take 8 to 10 seeds for 5days of menstruation.
8. *Cassine glauca* (Rottb) O Ktze (Bhutako–Celastraceae): Bark and fruits are used as abortifacient. Take 1-2 dry fruits and around 30gm fresh bark and boil in water (≈ 100ml) for 10min. filter and drink it for three days of menstruation.
9. *Costus speciosus* (Koenig ex Retz) Sm (Nevta–Zinzibaraceae): Seeds are used for contraception. Crush almost 8 to 10 seeds and take within 24hr of an intercourse.
10. *Crescentia cujete* L (Top Golo–Bignoniaceae): Seeds are used for contraception. Crush 5 to 6 mature seeds and take within 36hr of an intercourse. It is highly effective though less in practice as the availability of plant is less in nature.

11. *Cuscuta reflexa* Roxb (Amarvel–Cuscutaceae): Plant extract is used as abortifacient. Take almost 100gm of whole plant. Wash it with water and crush to extract juice. Consume twice a day for 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> day of mensuration. Reduce the dose if it causes vomiting or dizziness.
12. *Dioscorea bulbifera* L (Vara–Dioscoreaceae): Bulbs are used as abortifacient. Peel and make fine cheeps of the bulb and soak overnight. Take almost 20gm of such raw cheeps with empty stomach for 2days of mensuration.
13. *Hibiscus rosa-sinensis* (Jasud–Malvaceae): Flowers are used as abortifacient. Take 2 to 3 fresh flowers early in the morning with empty stomach for 7 to 8 days of the menstruation.
14. *Jatropha curcas* L (Ratanjyot–Euphorbiaceae): Seeds are used for contraception. Take a mature seed and rub on a rough and clean stone. Add a bit of water and make fine paste. Take almost 5gm of such paste within 1 day of an intercourse. Though it is considered a risky practice.
15. *Mallotus philippensis* (Lam) Muell (Kapilo–Euphorbiaceae): Fruits are used for contraception. Crush 2-3 fresh fruits with some water to make fine paste. Add a glass full of water and take it within 48hr of an intercourse.
16. *Martynia annua* L (Vichhiyo–Martyniaceae): Seeds are used as abortifacient. Almost 5 seeds are crushed to fine powder and taken orally with a glass of water for 3days of menstruation.
17. *Meyna spinosa* Roxb (Alau –Rubiaceae): Stem bark is used for contraception. Take around 50gm of fresh stem bark and boil in almost 300ml water till reduced to half. Consume hand-hot, within 48hrs of an intercourse.
18. *Momordica charantia* L (Karela–Cucurbitaceae): Seeds are used for contraception. 5 to 6 mature seeds are crushed in water to make fine paste. Take it with a spoonful of Neem seed oil within 36hr of an intercourse.
19. *Plumbago zeylanica* L (Safed Chitrak–Plumbaginaceae): Roots are used for contraception. Take almost 100gm of fresh roots. Clean them and pound to extract juice. Take it within 36hr of an intercourse.
20. *Semecarpus anacardium* L (Bhilamo – Anacardiaceae): Dried mature fruits are used for contraception. Take one dry fruit and crush in small amount of water to make fine paste. Consume within 24hr of an intercourse. It is an effective practice but avoided as it might cause diarrhea as a side effect.
21. *Streblus asper* Lour (Dativra – Moraceae): Fresh bark and leaves are used as abortifacient. 50gm of each, fresh bark and fresh leaves are taken and gently crushed. Boil the mixture with almost 1lt of water till reduced to half. Filter and store in cool and dark place. Take almost 70 to 80ml on the 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> day of mensuration.
22. *Trichosanthes bracteata* (Lam) Voigt (Kagdana Amba – Cucurbitaceae): Seeds are used for contraception. Crush one seed with small amount of water to make fine paste and take orally within a day of an intercourse.

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