

EFFECT OF NEEM OIL AS LOCAL CONTRACEPTIVE IN MANAGEMENT OF FERTILITY CONTROL

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ABSTRACT

Growing population is a great challenge to the new world. Since ours is a developing country, we would not be in a position amicably to afford the overall needs of the population if it continues to swell at the present rate. Modern scientific world has accepted the challenge and succeeded to search out many devices of popular measures for birth control among people through various agencies. Ayurveda have advised a large number of herbal drugs which are reported to contain antifertility effects viz. seeds of Pisum sativum, pea oil, Apamarg, patha, vidang, hingu, Langali, Japa, Nagdaman, Vans, Bhojpatra, chitrak, and so many other herbs are reported to contain such activities. "Neem Oil" is famous as a local Herbal contraceptive agent due to its antiseptic and spermicidal / activities. Keeping view the above facts, the study on Neem oil has been conducted and the results for a certain period are highlighted.

Introduction

Modern scientific world has accepted the challenge and succeeded to search out many devices to control the tremendous growth of population. Government has also introduced many popular measures for birth control among people through various agencies. Majority of the educated people have been convinced to adopt those popular methods even though the target, which was expected, could not be achieved due to various reasons. Thus, a search of cheaper and harmless contraceptive agent always remained in practice. During present days at the level of state or Central Govt. various laboratories are engaged in this great task of finding out a safer contraceptive agent. At the moment it was quite desirable to look upon the treasure of indigenous system of medicine, the Ayurveda for such purposes.

Ayurveda have advised a large number of herbal drugs which are reported to contain anti fertility effects viz seeds of Pisum sativum, Pea oil, Apamarg, Patha, Vidang, Hingu, Langali, Japa, Nagdaman, Vansh, Bhojpatra, Chitrak and so many other herbs reported to contain such

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activities. "Neem oil" is famous as a local herbal contraceptive agent due to its antiseptic and super medical activities.

Seeds of *Azadirachata indica*. A. Juss. (Family: Meliaceae), collected late in summer are crushed to expel the oil which is fatty in nature is filtered and colour deep yellow colour oil with strongly disagreeable odour, acrid and bitter in taste with more than 22 Acid value is achieved. Neem is also an useful remedy in some skin diseases, ulcer and is commonly applied externally to treat Arthritis, Leprosy and Sprains. Warm oil relieves ear troubles and cures various tooth and gum diseases. A few drop of oil in betel leaf provides relief from Asthma. Besides anti fertility, antiseptic and anti fungal properties, Neem seed oil is also used commercially in numerous cosmetic preparations.

The trial drug (Neem oil) is applied per-vagina before conjugation each time in quantity of 2 ml. In the trial, more than one hundred child bearing females were selected and kept under trial since April, 2002 in a research project by C.C.R.A.S. at C.R.I. (ay), Lucknow. The results are satisfactory. Results of such trial in female subjects are reported to assess the effects on the reproductive physiology.

In the same series Neem oil was used as vaginal pichu in 141 cases, out of which 105 cases could not conceived up to 18 menstrual cycles, other 105 females did not conceive up to 18 cycles and treatment was continued, wherever 36 females could not continue the treatment up to even 18 cycles.

Material and Method

Cases were selected from amongst the patients attending outpatient department of Central Research Institute (AY) Hospital, Lucknow. Only married females free from other gynaecological disorder and willing to use the local contraceptive were covered in the study.

"Neem oil" expressed from the seed of neem and mixed with lemon essence for removing the bad odour of Neem oil. The trail drug is applied per vagina before conjugation each time in quantity of 2 ml. Detailed history of the cases were taken on a specific prepared performa at the time of admission in the trial and the progress during the follow up was recorded. It was tried that each case should use the drug at last for a span of 36 menstrual cycles.

Criteria for Selection of Cases

Married women of the age ranging from 18th to 45 years i.e. during menarche to menopause were selected for the trail.

As such following are the main consideration for selection of cases:

1. Age of the women.
2. Non-Pregnant women.
3. Married women.
4. Mother of two or two or more children.

Criteria for Exclusion

Criteria for Assessment of Efficacy

The drug efficacy is mainly based on following points which predisposes to become pregnant:

1. The female has already a child.
2. The age of the female is of child bearing.
3. Coitus should be in unsafe period.

Observations and Result

Table 1
Age Group of Respondents

<i>Sl. No</i>	<i>Age Range</i>	<i>Number of cases</i>	<i>Percentage %</i>
1.	Up to 20 yrs	02	01.42
2.	21 to 25 yrs	40	28.37
3.	26 to 30 yrs	43	30.49
4.	31 to 35 yrs	42	29.79
5.	36 to 40 yrs	14	09.93
6.	41 and above	-	-
	Total	141	100

Selection of females was done between (up to 20)to 40 years of age group .In which maximum 43 were in the age group 26-30 years while minimum females were in the age group up to 20 years i.e .02. (Table 1)

Table 2
Religion of Patients

<i>Sl. No</i>	<i>Religion</i>	<i>Number of cases</i>	<i>Percentage %</i>
1.	Hindu	83	56.87
2.	Muslim	58	41.13
3.	Christian	-	-
	Total	141	98.00

Hindu females were more i.e 83 in comparison to Muslim females i.e. 58. (Table 2).

Table 3
Literacy level Of Respondents

<i>Sl. No</i>	<i>Grade of Literacy</i>	<i>Number of cases</i>	<i>Percentage %</i>
1.	Illiterate	4	2.84
2.	Literate	115	81.56
3.	Highly Educated	22	15.60
	Total	141	100

Out of 141 females maximum 115 were literate, 4 were illiterate while 22 were highly educated. (Table 3)

Table 4
Status of Living

<i>Status of Living</i>	<i>No. of cases</i>	<i>Percentage age %</i>
Lower	28	19.86
Medium	75	53.19
Higher	38	26.95
Total	141	100

Regarding status of living, 75 cases were of medium status, 38 were of highly educated.(Table 4).

Table 5
Food Habit

<i>Food habit</i>	<i>No. of cases</i>	<i>Percentage age %</i>
Vegetarian	42	29.79
Non- Vegetarian	99	70.21
Total	141	100

Out of total females 99 were non-vegetarian whether 42 were vegetarians. (Table 5).

Table 6
Parity Status

<i>Sl. No.</i>	<i>Parity</i>	<i>Number of cases</i>	<i>Percentage %</i>
1.	No child	-	-
2.	Having one Children	21	14.90
3.	Having two Children	59	41.85
4.	Having three Children	41	29.07
5.	Having more than three Children	20	14.18
	Total	141	100

Regarding parity status, maximum females i.e.59 had 2 children,41 had three children, 20 had more than three while only 21 females had only one child. (Table 6)

Table 7
Continuation of Drug

<i>Sl. No.</i>	<i>Continuation of Drug (Periods)</i>	<i>Number of cases</i>	<i>Percentage %</i>
1.	Drop out cases (less than 18 cycles)	36	24.53
2.	Cases continued for 18 cycles	105	74.47
3.	Continued for more than 18 cycles	Continued	
	Total	141	100

Out of total females, 105 cases continued the treatment for 18 cycles, other 105 cases were continuing more than 18 cycles while 36 were dropped out which could not continue the treatment up to 18 cycles even.(Table 7)

Table 8
Cases of Drop Out

<i>Sl. No.</i>	<i>Cases of Drop out</i>	<i>Number of cases</i>	<i>Percentage %</i>
1.	Not willing to use the drug	10	07.09
2.	Disagreeable odour of the oil	13	09.22
3.	Transfer Cases	03	02.13
4.	Not available at the time of follow up	10	07.09
	Total	36	25.53

Regarding dropped out females among various regions 10 were not willing to use the drug, 13 dis-agreeded due to bad odour of the oil , 03 dis-agreeded due to transfer while 10 could not attend the OPD for follow up due to short of time. (Table 8).

Discussion

There are so many methods of fertility control in medicine like Vaginal cream & Jelly, Faom Tablets, Condom, Intra-uterine contraceptive device, medicine is not far behind of fertility control in females. Many other forms of treatment are available in Indian system of medicine for the terment for fertility control but our main focus is on the neem oil Vaginal Pichu in the management of fertility control. The mean term observation after the period of 18 months was assessed. Out of which 105 did not conceive, other 105 cases were continuing ahead without failure while 36 were dropped out.

Conclusion

Neem Tree found in all the places of India commonly. Fruits of tree are green & yellow. So neem oil is early available, economical and easy to use also. Neem oil know for it Antiseptic, Spermicidal, Soothing & healing properties also. As such the drug "Neem oil" proved favourably effective in reproductive Physiology. Over all in the light of encouraging result of the Preliminary trial, Neem oil can safely be recommended as a local contraceptive. Neem oil is successful of fertility control. At last, the result of neem oil is good and encouraging.

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