

ANTI-FERTILITY EFFECTS OF SOME PLANTS USED BY THE STREET HERBAL VENDORS FOR BIRTH CONTROL

RAJIV K. SINHA and G.S. NATHAWAT

*Indira Gandhi Centre for Human Ecology, Environmental and population studies,
University of Rajasthan, Jaipur – 302 004, India*

Received: 13 May 1987

Accepted: 29 August 1989

ABSTRACT: The Herbal Vendors are the descendants of ancient mobile tribal medicine men. Now –a –days they sell crude Herbal Drugs on the streets of India. They have knowledge of medicinal plants – a skill which inherited from their forefathers. Also they are aware of the medicinal value of certain locally growing plants which are administered and control fertility and, do help family planning.

Introduction

Population explosion is the greatest single problem India is facing today. Modern medicine has provided several preventive and corrective methods of contraceptives none of which is very safe and without any serious side effects. Many countries have already banned the use of hormonal contraceptives because of its carcinogenic effects. The discovery of some herbal contraceptives, safe and sure is the need of the hour.

Herbal contraceptives were used even by the primitive people of ancient civilizations to control fertility and prevent pregnancy. The Egyptian literature “Ebers Papyrus” of 1500 B.C mentions about one of the oldest herbal contraceptives made by the mixture of Acacia tips with honey and was used in the form of suppository to be inserted into the Vagina (Jain 1986). Lazalo et. Al. (1954) reported that some anti-fertility plants used by the traditional healers. Billore and Audichiya (1978) reported the use of the Gum of *Butea monosperma* as the male herbal contraceptives by the tribals of Gujarat & Rajasthan. Tewary et. Al. (1982)

reported that the tribals of Assam uses *Hubiscus rosasinensis* and *Mimosa pudica* for temporary birth control, while *Heliotropium indicum* and *Salmalia malabarica* for permanent sterilization in woman. Kishore and Bhat (1982) reported the use of *Achyranthes aspera* and *Datura metel* as oral contraceptives by the tribes of Orissa. Kamboj & Dhawan (1982) and Hemadri and Rao (1983) also reported anti-fertility, abortifacient herbal drugs used by the primitive societies of India.

The herbal vendors often seen on the busy streets of many Indian cities selling crude medicinal plants and plant products kept in glass jars on the roadside stalls, are the nomadic tribes and descendents of the primitive tribal folkhealers from Rajasthan and adjoining Gujarat. They have learnt to utilize the local herbs for various purposes and against many human ailments and diseases through several generations of experience from their fore fathers and through experimentations on themselves. They have also been using several herbs to control fertility in their own family and prevent pregnancy among women. In the

course of survey made in Delhi certain information gathered on the herbal contraceptives used by these mobile medicine men is described hereunder.

Materials and Methods

Thousands of herbal live in Delhi throughout the year in temporary hutments and put up their stalls of crude medicinal plants and plant products on the roadsides at several places. Lajpat Nagar, Kalkaji, Chirag Dilli, R.K. Puram, Azmeri Gate, Lal Quila are some of their main areas of habitation and operation in Delhi. In Delhi 1288 Herbal vendors were approached and 1049 responded well to the study. They were interviewed about the medicinal properties of herbal drugs they sold and the nature of diseases for which they gave treatment. In several cases the users of the herbal drugs were also interviewed for verification of the authenticity of the drugs given by the Herbal Vendors. A specially prepared questionnaire was used for the purpose of both the studies. The common names of the medicinal plants used for treatment which were recorded and their botanical identification was done.

They indicated about four plant products which they use as oral herbal contraceptives in both males and females. They are preventive methods of birth control and give temporary protection only as long as they are used:

1. (a) Common Name: Mehandi
(b) Botanical Name: *Lawsonia alba*
(c) Family : Lythraceae
(d) Part used : Fresh leaves
(e) Uses :

50gms of juice of fresh leaves is to be taken regularly every day after the menses till the

commencement of the next menses. Prolonged use can lead to permanent sterilization.

2. (a) Common Name: "Sagwan"
(b) Botanical Name: *Tectona grandis*
Linn
(c) Family : Verbenaceae
(d) Part used : Fruits and young tender leaves.
(e) Uses :

The fruits and the young leaves (about 5 each) are to be eaten regularly with either milk or honey after the menses and till the commencement of next menses. It is to be taken early morning in empty stomach.

3. (a) Common Name: "Palas" or "Dhak"
(b) Botanical Name: *Butea monosperma* Kunz
(c) Family : Papilionaceae
(d) Part used : Fresh seeds
(e) Uses :

The fresh seeds (about 15 to 20) are to be taken every day by both males and females. It is to be taken in empty stomach.

4. (a) Common Name: "Papita"
(b) Botanical Name: *Carica papaya*
Linn
(c) Family : Caricaceae
(d) Part used : Seeds
(e) Uses :

About 50 seeds are to be eaten with water by both male and female regularly. It is to be taken early morning, empty stomach.

Discussion and Result

The plant products used by the Herbal Vendors for birth control are very simple and commonly available in all localities and climates of India. It is cheaper, easy to procure and also easy to be administered

further researches would be needed on these herbs to ascertain their biologically active compounds and their antifertility actions. It would specially prove to be a boon for the poor masses of India where population growth is maximum. In a cross-verification with the users a good number of them responded favourably.

Some of the plant products used by these street medicinemen have already stood to the scientific test of modern biological investigations. The seeds of *Carica papaya* has been experimentally found to inhibit spermatogenesis in males (Bapna et. Al. 1988). The contraceptive potentialities of the fresh seeds of *Butea monosperma* is also proved. (Kurup and Ramdas 1970).

LITERATURE CITED

1. Billore K.V. and K.C. Audichiya "Some Oral Contraceptives – family planning tribal way" J. of Res. In Indian Medicine, Vol. 13(2): 104 (1978)
2. Bapna J.S et al. "Studies on anti-fertility and hypoglycaemic plant products", Paper present at the National Symp. On the develop, of Indigen, Drugs in India. IHMMR New Delhi April 8-10, (1988).
3. Hemadri, K. & S.S. Rao, "Antifertility, abortifacient and fertility promoting drugs from Dandakarnya" Ancient Science Life, Vol. 3(2): 103 (1983)
4. Jain S.K., "Ethnobotany" Interdisciplinary Science Reviews Vol 11 (3): 285-292 (1986)
5. Kishore, P.& A. V. Bhatt " Oral Contraceptives folk claims from puri Dist. Orissa", Bull of Med & Ethnobot . Res Vol. 3(1): 65-67 (1982)
6. Kamboj, V.P & B.N Dhawan "Research on Plants for fertility regulation in Indian", J. of Ethnopharmacol Vol. 6: 191-226 (1982)
7. Kurup PVN & VNK Ramdas, "Handbook of Medicinal Plants" CCRAS. New Delhi (1979).
8. Lazalo, D. H & PH Hanshaw "Plant materials used by primitive people to effect fertility", Science Vol. 119: 626-631 (1954)
9. Tewary K.C et. Al., "Folklore information from Assam for family planning and birth control" Int J. of Crude Drug Res. Vol 20(3): 133-137 (1982).