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Folk Medicinal Practices used for removal of Kidney stone in Nilakottai taluk, Dindigul District, Tamilnadu, India

P. Packiaraj, K. Suresh* and P. Venkadeswaran

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Abstract: The present ethno-botanical explorations conducted in the Nilakottai taluk, resulted in the information on the plants used in treating many diseases. The most prevalent disease found in the area was Kidney stone. For which about 19 plants species belonging 12 families are used. Of these, maximum species belongs to Amaranthaceae with 4 species, 2 species to Fabaceae, Malvaceae, Cucurbitaceae and Padaliaceae each. Majority of preparation are from leaves and some are of underground parts (like root, rhizome, etc.,). Following communication includes the remedies against Kidney stone with the details like, method of preparation of medicine and its application. Among the plant parts used in different formulations, leaves are profusely used which is followed by stem, fruit and roots. Information gathered from different villages indicates that village people of this region possess good knowledge of plants in treating different ailments, but their continuous and progressive exposure to modernization may result in extinction of the rich heritage of knowledge in the course of time.

Keywords: Herbal formulation, Kidney stone, Nilakottai Taluk

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Present Address
P.G and Research Department of Botany
Saraswathi Narayanan College, Madurai 625 022,
Tamil Nadu, India.

*Corresponding author email :
suresh_zoo2010@yahoo.com

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1.Introduction

Plants have been used in traditional medicine for several thousand years. The knowledge of medicinal plants has been accumulated in the course of many centuries based on different medicinal systems such as Ayurveda, Unani and Siddha. In India, it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular sources of medicine (Pei, 2001). Kidney stones and urinary tract infection is a one of the major disease affecting human beings since from ancient age.

Vedic literature describes stones as Ashmari. The occurrence of stones has been increasing in rural and urban areas were there is problem of potable water and high temperature. To treat the disorder, various drugs are used. Even improvement in medical techniques has developed invasive methods of stone disruption like lithotripsy and surgical methods. But these methods are costly, non-affordable by the poor section and the re-occurrence rate is also high (50-80%) (Ziadi *et al*., 2006). The local uses of plants and products in health care are even much higher particularly in those areas with little or no access to modern health services (Saed *et al*., 2004). Traditional medicine practice is an important part of healthcare delivery system in most of the

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Table -1: Some of the Medicinal Plants used for removal of Kidney stone.

Botanical Name	Family	Local Name	Uses
Abrus precatorius L.	Fabaceae	Kundumani	Leaf juice 3 to 4 tablespoons, taken early morning for 15 days to dissolve kidney stones.
Abutilon indicum L .	Malvaceae	Thuthi	Three leaves taken orally early morning empty stomach for 15 days to dissolve kidney stone.
Aerva lanata (L.) Juss. ex Schult.	Amaranthaceae	Kooraipul	50-60 ml extract with 1teaspoon seeds of Cuminum cyminum and sugar taken orally once a day for 10 – 15 days to dissolve kidney stone. Curry of leaves eaten twice a day for 10-12 days.
Beta vulgaris L.	Amaranthaceae	Beetroot	1glass of beet root juice taken early morning for seven days is useful to dissolve kidney stone.
Celosia argentea L.	Amaranthaceae	Kozhipoo	1gram seeds powder taken once a day for 5 days to dis-solve kidney stone.
Citrus medica L.	Rutaceae	Elumichai	One inch fruit taken orally daily twice untill dissolve kidney stone.
Coccinia grandis (L.) Voigt	Cucurbitaceae	Kovai	20-40 ml extract of handful leaves with one tea spoon Cuminum cyminum seeds sugar and make volume up to 200 ml with Phoenix sylvestris toddy, given orally once a day for 5 days to dissolve kidney stone.
Colocasia esculenta (L.) Schott in Schott	Araceae	Cheppamkilangu	100 ml juice of rhizome taken once a day for 15 days to dissolve kidney stone.
Cynodon dactylon (L.) Pers.	Poaceae	Arugampul	10-20 ml extract of whole plant with roots taken orally twice a day for 8 -10 days to dissolve kidney stones.
Gomphrena serrata L.	Amaranthaceae	Vellavadamani	One tea cup juice of handful leaves taken once a day for 5 days.
Gossypium herbaceum L.	Malvaceae	Paruthi	Unripe fruits roasted in burning ash thereafter, extract of fruit taken out and taken orally to treat kidney stones.
Kalanchoe pinnata (Lam.) Pres.	Crassulaceae	Runakalli	Paste of leaves with Eclipta prostrata whole plant in equal proportion, made into 1 gm pills taken orally one or two pills twice a day for 20 days to dissolve kidney stone.
Lagenaria siceraria (Mol.) Standl.	Cucurbitaceae	Suraikai	1teaspoonfull of seeds powder taken with sheep milk daily one time 7days to dissolve kidney stone.
Pedalium murex L.	Pedaliaceae	Yanai nerungi	The dried seed powder is taken with water for urinary problems, kidney stones and reducing heat.
Sesamum orientale L.	Pedaliaceae	Ellu	Whole plant with Achyranthes aspera whole plant burnt to ash, taken orally one table spoon twice a day for 41 days to dissolve kidney stone.
Solanum virginianum L.	Solanaceae	Kandankathari	Root powder is mixed with a curd and taken once a day for 7 days for dissolving kidney stones.
Syzygium cumini (L.) Skeels	Myrtaceae	Naval	Fruit powder taken 1 spoon with water twice a day for 15 days to dissolve kidney stone.
Tribulus terrestris L.	Zygophyllaceae	Nerungi	5 gm powder of fruits with one tea cup of milk taken orally twice a day for 2 weeks to dissolve kidney stone.
Vigna unguiculata (L.) Walp. ssp unguic-ulata.	Fabaceae	Thatan chedi	100 ml decoction of seeds taken orally twice a day for 30 days.

developing world. The safest and cheapest remedy for the treatment includes the use of medicinal plants. There are various reports of plants used to treat the disorder, but the knowledge of treatment in different areas is different and it is just like a hidden treasure. The present study is bringing out the hidden treasure of knowledge used in the treatment of kidney stones and urinary tract infection in the Nilakottai taluk.

2.Materials and Methods

2.1 Study area

The study was conducted in Nilakottai taluk has 10° 10'N- 77° 52' E / 10. 17° N 77. 870 E at the elevation of 320M (1049 ft). The present study carried out in the following villages Nilakottai, Batlagundu, Pallapatty, Sengattampatty, Kunnuvarankottai, Sekkapatty, Viruveedu, Viralimayanpatty, Vilampatty and V. Perumalkovilpatty, etc., were surveyed between 2012 to 2013 by carried out ethnobotanical survey with adult and old people who live in the area under study and know the practical uses of medicinal plants.

2.2 Data collection

Data presented here is based on personal observations and interviews with traditional healers (Viz. medicine men and old aged people) and methodology is based on the methods available in literature Jain, 1989 and Jain and Mudgal, 1999. Ethnobotanical information gathered was documented in datasheets prepared. For collection of plant material, local informer accompanied to authors. Plant identification was done by using regional flora of Gamble, 1935; Mathew, 1983. Herbarium specimens are deposited at Department of Botany, Saraswathi Narayanan College, Madurai, Tamilnadu, India.

3. Results and Discussion

All together 19 medicinal plants belonging to 19 genera and 12 families have been recorded (Table 1). Out of these plants some are herbs, some are shrubs, climbers, and some are trees. Herbs are the most common medicinal plants. Majority of the species used in treating Kidney stone are from families Amaranthaceae, Fabaceae, Malvaceae, Cucurbitaceae and Padaliaceae and majority of preparation are from leaves, underground parts, Fruit, Seed, whole plant, etc.,

The noted plants are uptake orally in the way of decoction, inhalation, extraction, colloidal paste, or applied outside body in the form of paste and powder, and makeup with extraction. Most of the Plants utilized in day today life of human life, in the form of single or mixed with any other plant parts and other natural derivatives. Medicinal plants continue to play an important role in the healthcare system of this rural community of Nilakottai taluk (Packiaraj *et al*., 2014). Practical use of botanicals and must be continued focusing on its pharmacological validation. Further detailed exploration and collection of ethnobotanical information, chemical studies and screening for medicinal properties will provide cost effective and reliable source of medicine for the welfare of humanity.

4. Conclusion

Kidney stone is formation of urinary calculi at any level of urinary tract affecting about 12% of world population with a recurrence rate of 70-80% in male and 47-60% in female. Herbal drugs and medicinal plants play a vital role in kidney stone diseases. Also the undesirable effect of the modern medicine has already been overcome by herbal drugs which have diverted the attention of the people towards herbal medicines. To increase the acceptability and awareness among the people, there is an urgent need to develop trust and faith towards the safer indigenous system by establishing its validity in treatment for stone diseases. Health care systems are going to become more & more expensive, therefore we have to introduce herbal medicine systems in our health care.

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