

Traditional Knowledge of Kidney Stones Treatment by Muslim Maiba (Herbalists) of Manipur, India

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Abstract

This report is the first of its kind from Manipuri Muslims. Currently, kidney stones (urolithiasis) are recorded as being a painful health problem. For this reason, patients and their relatives seek herbal medicines as a prospective treatment for this condition. A survey was carried out in order to list the number of plants employed in solving kidney stones, as well as to record the age groups of the patients. A total of 39 (3.35%) persons out of 1162 registered by daily patient registration process of local herbal practitioners, between 12 to 70 years of age (S.D.±12), were recorded as suffering from kidney stones (urinary calculi). Patients between 31 to 40, and 41 to 50 suffered the most, while the group consisting of patients of 11 to 20 years of age suffered the least from this problem. A comparative checking of plants used for kidney stone treatment by Muslim and Meitei herbalists of Manipur is also discussed. The present research of kidney stone treatments will be useful for general public and also for the preservation of helpful plants in home gardens.

Keywords: conservation, herbalists, kidney stones, muslims, Manipur

Introduction

The kidneys are one of the most vital parts of our body (Anthea *et al.*, 1993; Kumar *et al.*, 2005; Reilly, 2005). Malfunction of the kidneys due to the blockage of urine by stones causes severe pain (Margaret *et al.*, 2010). This is an important health problem experienced by many people (Singh *et al.*, 1978). In several cases, patients and their relatives seek herbal medicines instead of modern medicines in order to alleviate the problem (Isaacs, 2010). Herbalists narrated that the patients having kidney stone generally experience sudden acute pain at their lower abdomen. Acute pain is due to the stones lodge in the urinary tract; the symptom starts with incessant vomiting (Stamatelou *et al.*, 2003; Schoenstadt, 2008).

There are four types of kidney stones (Fredric and Worcester, 2005). These include calcium, cystine, struvite and uric acid. Calcium is the most common form of kidney stones, while cystine is the least common variety.

Starting with primitive people the use of wild plants in curing various ailments (Salave *et al.*, 2010) is still current. Herbal-cure methods for kidney stones are found in the case of Muslim herbalists of modern time. The present documentation of herbal treatment by Muslim herbalists of Manipur state is the first of this kind.

Materials and methods

A field survey work and the registration of patients on daily basis of randomly selected 129 days were carried out from January 2006 to April 2008. As such, the same

work and methods (Ahmed and Singh, 2006, 2007, 2008, 2009) by formal interviews of informants, herbalists and collection of plants were followed. A total of 39 (3.35%) persons out of 1162 persons between 12 to 70 years of age (S.D. ±12) were recorded as suffering from kidney stones. The days were randomly taken, and the patients with kidney stones belong to various ethnic communities, such as Hindus, Meiteis, Pangals or Muslims, Nagas, Kukis, Nepalis etc. Four herbalists from Thoubal district in Manipur state were contacted for the study.

The present study did not consider the record of the modern hospitals as it aimed only to collect traditional information. Methods to cure kidney stones (Prachi *et al.*, 2009) by employing plants are also reported in India. Urinary tract stones, calculi, and kidney stones are the words used for this affliction worldwide, since this is a global health problem. Considering this, the present work of Muslim herbalists was carried out for its urgency to be documented for its validity of treatment of kidney stones by employing herbs. Other attempts to record herbal treatment of kidney stones are made by Bhatt *et al.* (2000a), Bhatt (2000b) Prachi *et al.* (2009), Pandey *et al.* (2005), Sharma and Gupta (2009).

Results and discussion

The experiences to cure or dissolve, and eliminate kidney stones by Muslim Maiba (herbalists) are commendable. The oral applications of plant decoctions are used. Small stones passing out with urination are brought by

patients to the herbalists with the hope of finding a herbal cure.

Muslim herbalists in the State of Manipur are popular for their methods of curing kidney stones. They attract a large number of patients every day. The patients between the age of 31 to 40, 41 to 50 and 11 to 20 (see Histogram) were recorded as the most affected and least affected group, respectively. A number of plants are used for kidney stone treatment, for which various methods are given (Tab. 1). Several plants (Tab. 1) are used by Muslim Maiba (herbalists) for the treatment of kidney stones.

Continuous boiling of decoctions is recommended because the preparations may develop a bad odor or taste.

The herbalists' experience says that kidney stones are dissolved and they recorded complete cure of them. Herbal treatment increases in the rate of urination. Hence, passing out stones of 1mm to 4mm size was recorded with

urination. Lastly, the resistant stones are treated during a lifetime by oral application of herbal drinks. It seems that the resistant stones cannot be cured.

Muslim Maiba (herbalists) differentially use *Heigru* (*E. officinalis* Gaertn.), *Haktikbanbi* (*M. minuta* (G. Forst.) Less.), *Long* (*S. aromaticum* (L.) Merr. and Perry), *Gul* (*P. longum* L.), *Komprek tujombi* (*E. fluctuans* Lour.), *Tezpat* (*C. tamala* L.), *Podina* (*M. arvensis* L.), *Ootang* (*B. nutans* Wall), *Yensil* (*O. corniculata* L.), *Karot* (*M. cochinchinensis* (Lour.) Spreng), *Nungjreng peruk* (*Centella* spp.) on medicinal preparation (Nabakishore, 2002) as do the ones Meitei ethnic community. Their methods (Nabakishore, 2002) to cure kidney stones bear a number of similar plants with that of Muslim herbalists. This may be due to their common language, as well as belonging to the same state and the interchange of knowledge. For example, some plants, such as *Kihomman* (*L. ruelloides* (Colsm Pen-

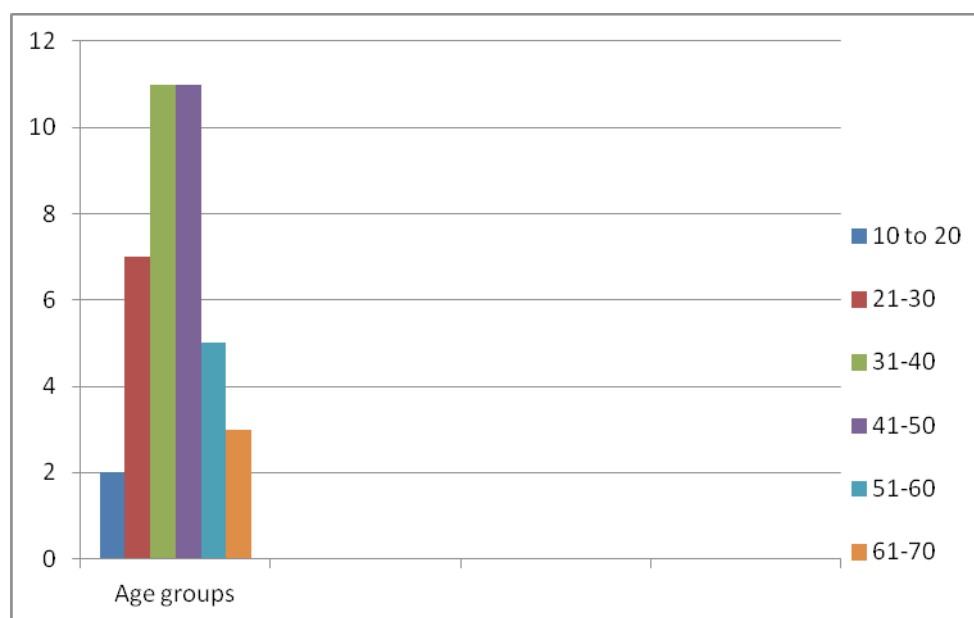


Fig. 1. Histogram showing frequency of kidney stone affected persons belonging to various age class intervals

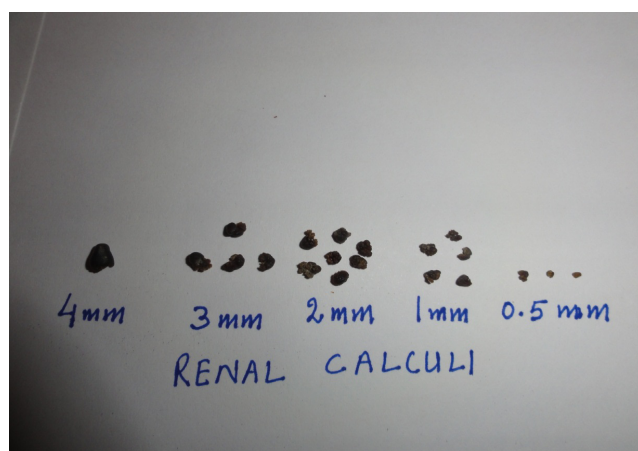


Fig. 2. Different size of renal calculi passed out along with urine after the herbal treatment

nell), *Heikreng* (*C. timorensis* Span.), *Yenam nakuppi* (*A. odorosum* L.), *Samukhongpak laba* (*F. nigerrensis* Schltdl. Ex. J. Gay), *Heinoujom* (*A. carambola* L.), *Mange hei* (*T. indica* L.), *Kangphal Langthrei* (*Eupatorium* spp.), *Takhellei Angangba* (*Hedychium aurantiacum* Rosc.) are similarly used. However, not all of them are exactly the same. This is due to the unique knowledge inherited by the different communities.

Cross checking of plants used by Muslims for kidney stone treatment in the literature does not reflect their similar uses and methods of preparation in other regions. Some plants as *Crataeva nurvala* Buch.-Ham., *Solanum surattense* Burm.f. (Prachi *et al.*, 2009), *Crataeva nurvala* Buch.-Ham. (Bhatt, 2000b) and *Solanum surattense* Burm.f. (Bhatt *et al.*, 2000a) have been found to be useful for the treatment of kidney stones (calculi). Some plants as

Tab. 1. Traditional herbal treatment methods of kidney stones by Muslim herbalists

Plants	Local name	Plant parts	Quantity	Process	Dose
<i>Emblca officinalis</i> Gaertn. (<i>Euphorbiaceae</i>)	Heigru	Fruits	250 ml Juice extraction	Mix extracted juice with 250 ml lime water	Take 4 spoons orally twice daily for 7 days
<i>Myriogyne minuta</i> (G.Forst.) Less. (<i>Asteraceae</i>)	Hakthikhanbi	Whole Plant	250ml Juice extraction	Boiled with 1 liter water	Drink (100 ml) a day for 7 days
<i>Syzygium aromaticum</i> (L.) Merr. and Perry (<i>Myrtaceae</i>)	Long	Inflorescence	1 teaspoonful powder		
<i>Piper nigrum</i> L. (<i>Piperaceae</i>)	Gul	Seed	1 teaspoonful powder		
<i>Momordica cochinchinensis</i> (Lour.) Spreng (<i>Cucurbitaceae</i>)	Karot	Seed	1 teaspoonful powder		
<i>Enhydra fluctuans</i> Lour. (<i>Asteraceae</i>)	Komprek-tujombi	Whole plant	5 gm	Boiled with 1 liter water by putting little sugar candy as sweetener	Drink 100 ml daily for 7 days
<i>Fragaria nilgerensis</i> Schltdl. Ex. J. Gay (<i>Rosaceae</i>)	Samu khongpak laba	Whole plant	5 gm	Boiled with 2 litre water by putting a little sugar candy	Drink 100 ml daily till cure
<i>Lindernia ruellioides</i> (Colsm) Pennell (<i>Linderniaceae</i>)	Kihomman	-do-	5 gm		
<i>Celtis timorensis</i> Span. (<i>Ulmaceae</i>) Put a little salt	Heikreng	Leaves	10 gm	Boiled with 2 liters water by putting a 2 spoonful of sugar	Drink 1 tea glass twice daily for 10 days
<i>Cinnamomum tamala</i> L. (<i>Lauraceae</i>)	Tezpat	Leaves	5gm	Both plants boiled together with 1 liter water by putting 1 teaspoonful sugar	Drink 1 tea glass twice daily for 10 days
<i>Celtis timorensis</i> Span. (<i>Ulmaceae</i>)	Heikreng	Leaves	5 gm		
<i>Mentha arvensis</i> L. (<i>Lamiaceae</i>)	Podina/ Nungshi hidak	Leaves	250 gm	Crushing leaves with 50 ml water by using mortar and pestle	Drink half tea glass daily for 3-7 days
<i>Bambusa nutans</i> Wall. (<i>Poaceae</i>)	Ootang	Bamboo shoot	250 gm	Sliced 250 gm of shoots and boiled in 1 liter water	Drink half tea glass daily for seven days
<i>Eupatorium</i> spp. (<i>Asteraceae</i>)	Kangphal langthrei	Leaves	10 gm	Boiled in 1 liter water by putting a little honey as sweetener	Drink half tea glass twice daily for seven days
<i>Averrhoa carambola</i> L. (<i>Averrhoaceae</i>)	Heinoujom	Fruit	300 ml	Put 2.8 g silver element (used in fusing a gold chain) into 300 ml fruit juice	Drink half tea glass daily for five days
<i>Centella</i> spp. (<i>Apiaceae</i>)	Nungjreng peruk	Whole plant	20 gm	Boiled in 1 liter water	Drink 1 tea glass daily for 7 days
<i>Celtis timorensis</i> Span. (<i>Ulmaceae</i>)	Heikreng	Leaves	20 gm		
<i>Lindernia ruellioides</i> (Colsm) Pennell (<i>Linderniaceae</i>)	Kihomman	Whole plant	20 gm		
<i>Allium odorosum</i> L. (<i>Alliaceae</i>)	Yenam nakuppi	Leaves	250 gm	Boiled in 1 liter of water and adding little sugar candy	Drink 1 tea glass daily till cure or eat it with salad items as much as possible
<i>Tamarindus indica</i> L. (<i>Caesalpinaceae</i>)	Mange hei	Leaves	20 gm	Boiled with 1 liter water	Drink 1 tea glass daily for seven days
<i>Oxalis corniculata</i> L. (<i>Oxalidaceae</i>)	Yensil	Whole plant	100 gm	Boiled with 1 liter water	Drink 1 tea glass daily for seven days
<i>Fragaria nilgerrensis</i> Schltdl. Ex. J. Gay. (<i>Rosaceae</i>)	Samukhongpak laba	Whole plant	100 gm	Boiled with 1 liter water	Drink 1 tea glass daily for seven days
<i>Hedychium aurantiacum</i> Rosc. (<i>Zingiberaceae</i>)	Takhellei Angangba	Stem	10 gm	Boiled with 1 liter of water	Drink half tea glass daily

Cramp bark (*Viburnum opulus* L.), Golden rod (*Solidago* spp.), and Joe-pye weed (*Eupatorium maculatum* L.) are found to be useful for reducing infection, pain, spasm.

Bhatt *et al.* (2002a) also reported some plants useful for calculi cure. These plants are *Corchorus depressus*

(L.), *Solanum surattense* (Burm. f.), *Ascarantha longifolia* (Nees.), *Ocimum sanctum* (L.), *Hackelochola granularis* (L., Kuntz), etc. There are reports of calculi cure by *Cra-*

taeva nervula Buch.-Ham., *Pedaliium murex* L. (Bhatt, 2000b).

In Manipur, *Eupatorium spp.* is used by Muslims and Meeteis herbal practitioners. Chinese tea of Hydrangea root (*Hydrangea macrophylla* (Thunb., Ser.) along with other preparations is reported (citehr.com). Roots and leaves of *Boerhavia diffusa* (L.) are used for kidney stone treatment (Pandey *et al.*, 2005). Root decoction of *Boerhavia diffusa* (L.) is useful for kidney stone (Pandey *et al.*, 2005). The wine made from white and red currants has been used for calculous affections (Sharma and Gupta, 2009).

Herbal cure methods in the case study have been claimed to have no side effects. They are cheaper than modern medicine techniques. For this reason, many patients prefer herbal medicines to the modern medicine. This encourages their belief in traditional practices to cure kidney stones. A number of plants are employed as first aid and to cure this health problem which existed since immemorial time. Certain plants have been used with great success to treat kidney stones and this documentation gives an opportunity to conserve useful plants by growing them in home gardens.

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