RESEARCH NOTE

MEDICINAL CONTRIBUTIONS FROM CERTAIN SPECIES OF *LITSEA*

The genus *Lisea* belongs to the family of Lauraceae and is well known for the evergreen species of *Litsea glutinosa* and *Litsea monopetala*. Both these species can attain a height of 20 metres.

Botanical distinction : It seems that the local people hardly distinguish *L. glutinosa* from *L. monopetala* and hence we find same local names for these two species in some cases. However botanists distinguish the former from the latter by the fact that while the Perianth is very incomplete or even 0 in case of *L. glutinosa*, it is complete in case of *L. monopetala* (Saxena and Brahmam, 1995).

Chemistry : Tannin, β-sitosterol, and actinodaphnine are the common constituents of both the species (Chatterjee and Pakrashi, 1994). Other constituents are as given below (after Chatterjee and Pakrashi, 1994) :

Litsea glutinosa	*Listsea monopetala*
Boldine, norboldine, laurotetanine, N-methyllaurotetanine, N-methylactinodaphnine quercetin, sebiferine, litseferine, etc.	Trilaurin, triolein, arabinoxylan

Percentage of fat in the seeds (from which oil is extracted) is lower (21%) in *L.monopetala* than in *L. glutinosa* (35%) (CSIR, 1998).

Medicinal uses : Till a decade or two earlier, these two species hardly had any commercial significance for the villagers of Orissa. They were at best being used for some therapeutic purpose at domestic level and the parts used were the fruits, elaves and the bark. However, the amount of exploitation/extraction was quite small as well as occasional and there was no threat to their existence.

The bark and the leaves were more frequently used than the fruit. The bark of *L. glutinosa*, which, according to Kirtikar and Basu (1981), "is one the best known and most popular of native drugs", is considered to be capable of relieving pain, arousing sexual power and also, producing a soothing effect on the body while that of *L. monopetala* is supposed to be, besides having some of the properties of the bark of *L. glutinosa*, good for the stomach (Chatterjee and Pakrashi.1994). Both (bark) are considered to be midly astringent (i.e., capable of arresting bleeding or secretion) (Kirtikar and Basu, 1981).

The mashed bark (fresh), which is mucilaginous or sticky, is applied on wounds and bruises, If not fresh, the dried bark is powdered and turned into a paste by adding some water for application on the body. The Kshatriya community of Nowrangpur District in Orissa believed that applying the bark-paste of *L. glutinosa* on the wound by an iron axe would work as an antiseptic. This paste is/was also applied as plaster on broken limbs. It is used as an medicine or sometimes, as an adhesive that would keep other medicinal ingredients

attached to the affected part of the body (e.g., in boils).

The bark is also used in animal health care. Among the veterinary uses are application of the bark-paste on the fractured limbs and also, on the wounds developed on the neck of bullocks due to frequent friction of the yoke with the body. In the latter case, the fresh bark is mashed and heated slightly after which it is applied on the affected part. The process is repeated for two or more times for one or two days till the wound gets cured.

The fruits (berries) yield an oil which is used by some tribal practitioners in the treatment of rheumatism. The extraction is difficult and the yield is very small, hence the oil is costly and less commonly used.

The roots of *L. monopetala* are believed to be effective in pains and bruises whereas that of *L. glutinosa* are used to promote/ regulate menstrual flow.

Table 1 details the local/botanical names and uses of the two species.

Towards the end of the 1980s, these species almost suddenly changed their value for the local people in Orissa when traders engaged them in the large scale extraction of glutinous bark. This large scale extraction was not meant for any pharmaceutical industry, but for the Agarbatti (incense sticks) industries which used this bark as a substitute to that of *Persea macarantha*, another famous species of the Lauracea family. In Agarbatti making, this glutinous bark works as a suitable natural binding material and no other natural ingredients (glutinous) could take its place in the Agarbatti industyr due to a number of reasons. Initially, most of the local people remained ignorant of its commercial importance and the agents and their men, who worked for the traders, sometimes explained them that they needed the bark for medicinal use. This created a sympathy in the mind of the owners of the trees and they allowed the extraction even without asking for a compensation. The rampage that continued for 10 to 15 years has now made these species endangered in the State and elsewhere. As a preventive measure, the PCCF, Orissa recommended for not allowing any more leases of the bark of these species in the state, but it did not work, thanks to the nexus between the traders and the politicians. However, the Government of Orissa changed its policy in March 2000 and has since banned the commercial exploitation of all kinds of bark.

Unscientific debarking is the major factor causing the rapid decrease in the number of these species in Orissa. The bark-collectors either cut down the trees or even do not spare the roots. However, during the days when the plant was known almost only for some medicinal use, there was no such danger to the existence of these species of *Litsea* since the strip of bark removed, even if unscientifically, was hardly of any significant amount.

Kirtikar and Basu (1981) state that *Litsea polyantha / monopetala* has been identified as the Gajapippali of Sanskrit. This seems to be a mistaken identity since Gajapippali is quite a different species (*Scindapsus officinalis*). And the possible explanation for this mistake may lie in the fact that both these species have a common local name (Maida) in the North India.

Table 1

Local / botanical names and uses of Litsea glutinosa and L. monopetala

Plant species	Common/local names	Parts used	Therapeutic indications	References/sources (for therapeutic indications)
Litsea glutinosa Lour. (syn. *Litsea chinensis* Lam., *Litsea sebifera* Pers.	Maida lakri, Garbijaur (Hindi), Jaisondha, Amini, Medha, Moshania, Garudagovinda Baghuari (Oriya), Heluka (Assam), Kukurchita (Bengali), Narra alagi (Telegu), Uralli (Tamil)	Bark	Diarrhoea, dysentery, sprains, bruises, rheumatic gouty joints.	*The Useful Plants of India*, p.334 (CSIR, 1992).
		Leaves	Bruises and wounds	-do-
		Roots	Menstrual disorded (as an emmenagogue)	-do-
		Seeds	Rheumatism	Chatterjee and Pakrashi, 1994; p.107.
Litsea monopetala Pers. (Syn.- *Litsea polyantha* Juss., *Tetranthera monopetala* Roxb.	Meda, Maida lakri (Hindi/Punjabi), Pojo, Medha, Baghuari, Moshania (Oriya), Muga (Assam), Bara Kukur chita (Bengali), Naramamidi (Telegu), Maidalagadil (Tamil)	Bank	Diarrhoea, bruises	Chatterjee and Pakrashi: 1994; p.108
		Leaves	Diarrhoea & dysentery	
		Roots	Pains, bruises, contusions	Chatterjee and Pakrashi, 1994; p.108
		Seeds	Rheumatism	

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The author is thankful to Smt. Ratani Mahato (Budhikhamari), Shri Narendra Sethi (Cuttack), Shri Banambara Das (Barapalli), Shri Pradeep Kumar Swain (Akhupadara) and Shri Matias Dungdung (Churichaka) for their contribution to our knowledge of the medicinal uses of *Litsea glutinosa* and *Litsea monopetala*.

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