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Ethnomedicine of Pakur district in santhalpragana of Jharkhand, India- plants used in oral health care

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Abstract : The use of traditional medicine is quite popular amongst the ethnic groups of santhalpragana of Jharkhand. This knowledge of natural medicinal plants and there use includes dental ailments also. Data about the local wild leafy vegetables was gathered through PRA exercise, questioner and interview of ethnic and other respondent people of Pakur districts. The widespread use of these natural medicines is of great importance in maintaining oral health economically in the santhalpragana.

Keywords : Ethnomedecine, oral, dental, tribal, Pakur, Jharkhand.

INTRODUCTION

Ethnomedicine is a study or comparison of the traditional medicine practiced by various ethnic groups, and especially by indigenous peoples[1]. The word ethnomedicine is sometimes used as a synonym for traditional medicine[2]. Ethnopharmacology is a related study of ethnic groups and their use of drugs. Ethnopharmacology is distinctly linked to plant use, ethnobotany, as this is the main delivery of pharmaceuticals[3].

According to WHO, dental caries is defined as localized post eruptive pathological process of external origin involving softening of the hard tooth tissue and proceeding to the formation of cavity[4]. Dental diseases and pyorrhoea refers to the area the infection affects, which include the teeth, gums, and tissues surrounding the teeth. Bacteria cause inflammation of the gums which become red, swollen and can bleed easily. The bacteria along with mucus form a sticky colourless substance called plaque which harbours the bacteria[5]. Oral hygiene is maintained by use of toothbrush and mouthwash. Using stems of various trees as twig or *daatun* has been well documented in ancient Indian culture.[6]

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MATERIALS & METHODS

During the course of extensive surveys carried among ethnic communities of santhalpragana, data about the local wild leafy vegetables was gathered through PRA exercise,questioner and interview of ethnic and other respondent people Pakur districts. (fig 1).

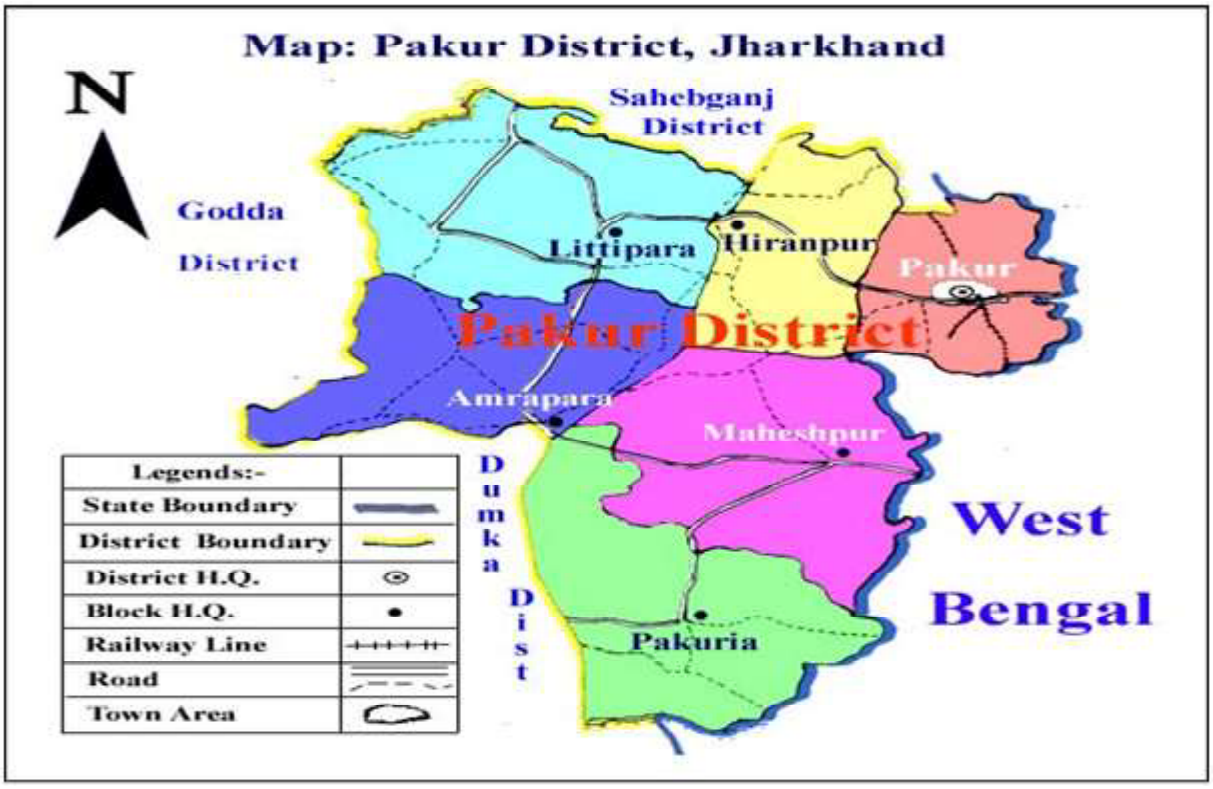

Fig. 1. Map of Pakur District (Source: Internet services) www.Indiamapsite.com /Jharkhand

RESULT

The data on medicinal plants, which was collected from inhabitants in hills, Pakur districts, were pooled and analysed. Of these 10 plant species belonging to7 Families have been found to be used in oral health care. The enumeration and utilization of these plants are described in **table 1** below.

1. BINOMIAL	***Acacia nilotica,* (L.)**
Family	Mimosaceae
Vernacular Name	Babool,
Parts Used	Stem , bark
Ethnomedicinal Uses	Tooth ache: Bark paste is applied on the affected area for tooth ache. Stem used as tooth brush
2. BINOMIAL	***Achyranthes aspera***
Family	Amaranthaceae
Vernacular Name	Aghata ,Latjira, Chirchira
Parts Used	Leaves
Ethnomedicinal Uses	Tooth ache: Leaf paste is applied on the affected area for tooth ache.
3. BINOMIAL	***Azadirachta indica,* A.**
Family	Meliaceae
Vernacular Name	Nimdaru, neem
Parts Used	Stem, leaves
Ethnomedicinal Uses	Tooth ache: Leaf oil is applied on the affected area for tooth ache. Stem used as tooth brush, Leaf paste applied on ulcer, Boiled decoction of leaf used as mouthwash in bleeding gums

4. BINOMIAL	***Aerva javanica***
Family	Amaranthaceae
Vernacular Name	Ledraarxa, Nanrilupuara
Parts Used	Roots
Ethnomedicinal Uses	Root of the Plant is used in toothache as tooth-brush
5. BINOMIAL	***Aerva lanata***
Family	Amaranthaceae
Vernacular Name	Kapurijadi, Ledraarxa, Lupuara
Parts Used	Roots
Ethnomedicinal Uses	Root of the Plant is used as analgesic and in toothache that's why also called 'Gorakh-Ganja'
6. BINOMIAL	***Eclipta prostrata***
Family	Asteraceae
Vernacular Name	bhringraj
Parts Used	Leaf
Ethnomedicinal Uses	Leaf extract use in tooth ache. Leaves are also munched to relieve pain due to tooth decay
7. BINOMIAL	***Scoparia dulcis***
Family	Scrophulariaceae
Vernacular Name	Madukamkoara, Guru ara,, Chinisakam
Parts Used	Leaves
Ethnomedicinal Uses	Infusion of leaves is given in case of toothache
8. BINOMIAL	***Spilanthes oleraceae***
Family	Asteraceae
Vernacular Name	Raipuru
Parts Used	Leaves and roots
Ethnomedicinal Uses	Decoction is used in curing toothache and throat complains and as mouthwash for gum diseases
9. BINOMIAL	***Holostemma ada*-kodien**
Family	Asclepiadaceae
Vernacular Name	Apung, MotaGonge
Parts Used	Stem
Ethnomedicinal Uses	Warm stem infusion for rinsing the mouth in dental caries is useful.
10. BINOMIAL	***Boerhavia diffusa***
Family	Nyctagenaceae
Vernacular Name	"Khaprasak", "Ohoic-arak"
Parts Used	Root
Ethnomedicinal Uses	Paste of roots used in oral ulcers

DISCUSSION

Ethnopharmacy is the interdisciplinary science that investigates the perception and use of pharmaceuticals within a given human society. The Adivasi cultural heritage of santhalpragana is rich in the knowledge of medicinal herbs. The ethno medicinal use of various plants has been documented in many districts of India. Hebbar *et al.* did an ethnobotanical study plants used in oral health care in Dharwad of Karnataka[6] and reported that 35 plants belonging to 26 families were being used to treat different

types of oral ailments like toothache, plaque and caries, pyorrhea and aphthae. Muthu *et al.* studied plants used by traditional healers in Kancheepuram District of Tamil Nadu[7], Rao *et al* did a study on the ethnomedicine of the Gadabas, a primitive tribe of Visakhapatnam district of Andhra Pradesh[8], Panhal *et al.* observed the medicinal plants used by Saperas community of Khetawas, Jhajjar District, Haryana [9]. Similar studies[10-12] in various districts has commonly found that ***Aerva javanica*** and ***Aerva lanata*** of Amaranthaceae family have been used routinely for tooth ache.

CONCLUSION

Emphasis has long been on traditional medicines, although the approach also has proven useful to the study of modern pharmaceuticals.[13] In the absence of widespread reach of modern toothbrush, tooth paste and ointments for ulcers, this approach has led to maintenance of oral health of the Santhali population of Jharkhand in the remotest of tribes.

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