



Ethnoveterinary Studies of Plants Used in Retention of Placenta of Cattle in Nimar Region (M.P.)

Parashar Preeti

Department of Botany, P.M.B. Gujarati Science College Indore, Madhya Pradesh, India

ABSTRACT

The Nimar region is situated in the southern western part of Madhya Pradesh and covering four districts namely Khargone, Barwani, Khandwa and Burhanpur. The chief tribes of the Nimar regions are Korku, Gond, Nihal, Bhil and Bhilala. Present study deals 28 ethnoveterinary plants species belongs to 16 families and 26 genera used against retention of placenta disease in cattle.

Keywords: Korku, Gond, Nihal, Bhil, Bhilala and Retention of placenta.

I. INTRODUCTION

The term Ethnoveterinary was introduced by Mc Corkle in 1986 and defined it in 1996 as “The holistic interdisciplinary study of local knowledge and its associated skills, practices, beliefs, practitioners and social structures pertaining to the healthcare and healthful husbandry of food, work and other income producing animals”. In villages there are local healers who are well experienced and knowledgeable enough in traditional veterinary health care. They use the locally available medicinal plants for treatment of animals. These local healers are very popular in tribal and rural communities. These people are knowledgeable and are familiar with the signs and symptoms of various common diseases and cure these diseases accordingly with the available plant resources. These tribals mostly reside in the remote villages where no organized veterinary medical aid is available. The tribals are basically agriculturist and raised domesticated animals such as oxen, cows, buffaloes for milk and agriculture. Tribals treat their live- stock with herbal medicine on the basis of their empiric knowledge.

II. METHODOLOGY

An ethnoveterinary survey was conducted in different tribal remote villages of the area during 2012-

2016. Information about the plants used in retention of placenta disease are gathered from the different resource persons including Bhumka, Badwas, Bhagat, Vaidya who have much knowledge on medicinal plants by interviewing and semi-structured questionnaires were prepared. Information was checked by the other informants also. Plants are collected with the help of local medicine men and identified with the help of flora (Hooker 1872-1897; Haines 1924; Jain and Rao 1977, Ray 1984; Verma, et al., 1993; Mudgal et al., 1997; Singh et al., 2001).

III. OBSERVATIONS

1. *Abrus precatorius* L.

Family - Leguminosae

Local name - Ratti, Jurang and Guraj.

Evt Uses: Paste of seeds (10-12) along with jaggery is fed orally to cattle for retention of placenta.

2. *Acacia catechu* (L.f.) Willd

Family - Leguminosae

Local name - Khair.

Evt Uses: Plant gum is used as ointment for retention of placenta.

3. *Aegle marmelos* (L.) Correa.

Family - Rutaceae

Local name - Bel patra, Bilawa patra

Evt Uses:Leaves of *Aegle marmelos* (Bel) with that of *Vitex negundo* (Nirgudi), *Trachyspermum ammi* (Ajwain) and *Sesamum indicum* (Til) seeds are boiled in water,the luke warm extract is given orally in retained placenta of cattle.

4.*Alangium salviifolium* (L.f.) Wang.

Family - Cornaceae

Local name– Ankol

Evt Uses:A piece of root, *Oryza sativa* (Rice) grains and *Solanum melongena* (Brinjal) flower are ground together with little amount of water and administered orally to treat retention of placenta.

5.*Argemone mexicana* L.

Family–Papaveraceae

Local name–Pilikatari, Peela Kantasla,Satyanashi.

Evt Uses:Plant is mixed with fodder given to cattle for removal of placenta after delivery.

6.*Balanites aegyptiaca*(L.).Delile.

Family-Zygophyllaceae

Local name–Hingot, Hinganbet.

Evt Uses:Paste of seed is fed to cattle for retained placenta.

7.*Boerhavia diffusa* L.

Family- Nyctaginaceae

Local name–Khadvad,Dagadafod, Jhinjuri, Pattharchatta.

Evt Uses:.Plant paste mixed with oil of *Ricinus communis* (Arandi) is given orally to cattle for retention of placenta.

8.*Bombax ceiba* L.

Family- Malvaceae

Local name–Semal, Semak,Semalkand

Evt Uses:Flowers mixed with the stem bark powder of *Alangium salvifolium* (Ankol) are given to cattle for retention of placenta.

9.*Caesalpinia bonduc*(L.) Roxb.

Family- Leguminosae

Local name–Chirchirgoti, Kali gattar.

Evt Uses:50ml of root decoction with paste of 21 *Piper nigrum* (Kali mirch) given to cows for retained placenta.

10.*Cucumis melo* L.

Family- Cucurbitaceae

Local name–Phoot , Kharbooj.

Evt Uses:Fresh fruits are fed with fodder to retained placenta after delivery.

11.*Curcuma amada*Roxb.

Family- Zinziberaceae

Local name–Amba haldi.

Evt Uses:100gm of dried rhizome is mixed with black salt ,100 gm of *Piper nigrum* (Kalimirch),100 gm seeds of *Trachyspermum ammi* (Ajwain),250 gm of Jaggery,100gm ghee is given once a day for easy removal of placenta after delivery.

12.*Dendrocalamus strictus*(Roxb.)

Family- Poaceae

Local name–Bans, Vasla.

Evt Uses:Leaf paste mixed with cow's milk and a *Trachyspermum ammi* (Ajwain) seed in water is administered orally to cattle for retention of placenta

13.*Diplocyclos palmatus*(L.) C.Jeffrey.

Family- Cucurbitaceae

Local name–Dangari, Shivlingi,Indrayan.

Evt Uses:Seeds are grinded with *Trachyspermum ammi* (Ajwain) seeds,*Zingiber officinale* (Adrak) and Jaggery in water after warming drenched to cows and buffaloes for retention of placenta.

14.*Euphorbia neriifolia* L.

Family-Euphorbiaceae

Local name–Thuar,Niwarung.

Evt Uses:Plant is chopped and mixed with fodder is fed to cows and buffaloes to remove placenta.

15.*Ficus benghalensis* L.

Family-Moraceae

Local name–Bargad,Bad Wad.

Evt Uses:Decoction of root mixed with salt is given orally after delivery for removal of placenta.

16.*Ficus hispida* L.f.

Family-Moraceae

Local name–Bhuigoolar, Katumbar.

Evt Uses:Green leaves are fed to cows after delivery for quick retention of placenta.

17.*Ficus religiosa* L.

Family-Moraceae

Local name–Peepal.

Evt Uses:Decoction of bark is given orally to cows for removal of retained placenta after delivery.

18.Gossypium herbaceum L.

Family-Malvaceae

Local name-Kapas.

Evt Uses:Decoction of unripe fruit fed to cows to help in retention of placenta after delivery.

19.Grewia hirsuta Vahl.

Family- Malvaceae

Local name-Gadsatri ,Gursakri.

Evt Uses:.50 ml of roots decoction is given to cattle after delivery for quick removal of placenta.

20.Madhuca longifolia var. latifolia.(Roxb.) A.Chev.

Family- Euphorbiaceae

Local name-Mahua, Moho.

Evt Uses:Flowers are mixed with rice bran is given orally to the cows / buffaloes in case of removal of retained placenta

21.Musa paradisiaca L.

Family-Musaceae

Local name-Kela.

Evt Uses:.Leaves are fed to cow after delivery for retention of placenta.

22.Oryza sativa L.

Family-Poaceae

Local name-Dhan,Rice.

Evt Uses:.2 or 3 kg.of rice is fed to cows and buffaloes for removal of retained placenta.

23.Senna auriculata(L.) Roxb.

Family-Leguminosae

Local name-Tarvad.

Evt Uses:.250-500ml decoction of leaves is given to cattle immediately after delivery for removal of retained placenta.

24.Terminalia arjuna(Roxb. ex DC.)Wight & Arn

Family-Combretaceae

Local name-Kau, Kahu.

Evt Uses:Paste of fresh bark is given to cows for removal of placenta after delivery.

25.Trachyspermum ammi (L.)Sprague in Kew Bull.

Family- Apiaceae

Local name -Ajwain.

Evt Uses:80-100gm.seeds are powdered and mixed with jaggery and paste is given orally to cow and buffaloes twice a day for removal of placenta.

26.Trichosanthes tricuspidata Lour.

Family-Cucurbitaceae

Local name- Parbal, Gaulan, Indrayan.

Evt Uses:.Seed powder with Zingiber officinale (Adark) Trachyspermum ammi (Ajwain) and jaggery are boiled in water . This decoction is given orally to cows and buffaloes for removal of retained placenta after delivery.

27.Trigonella foenum- graceum L.

Family-Leguminosae

Local name-Meithi.

Evt Uses:Decoction is prepared from the seeds and Baccharoides anthelmintica (Kala jeera) is drenched to animal for retention of placenta.

28.Withania somnifera(L.) Dunal

Family- Solanaceae

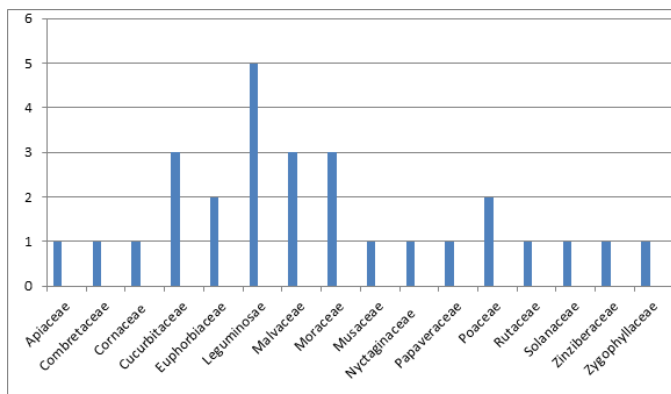
Local name-Asgand, Askand.

Family- Solanaceae

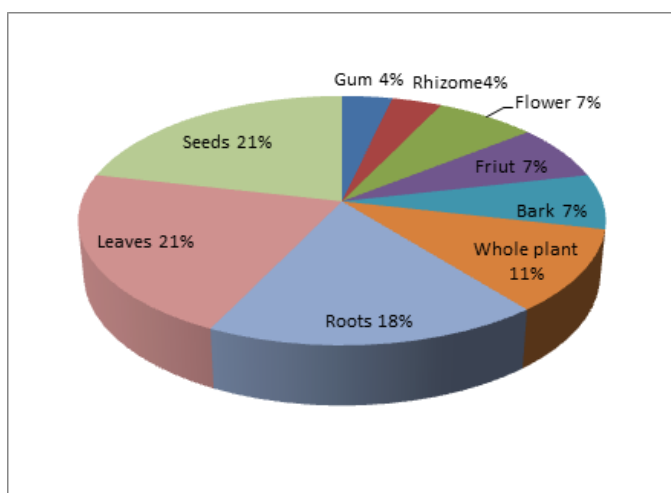
Evt Uses:Crushed roots mixed with jaggery and dried rhizome powder of Zingiberofficinale (Adrak) and ghee mixed together make it into bolus given to cattle twice a day to cure retard placenta.

IV. RESULT AND DISCUSSION

A total 28 plants species belonging to 16 families and 26 genera were used in treatment of retention of placenta in cattle. Retained placenta in the bovine is defined as failure of the foetal placenta to separate from the maternal placenta (Weatherill, 1965) or failure to pass all or part of the placenta from the uterus within 24 hours of calving (Guard, 1999) Retained placenta causes great economic losses, mainly due to decreased milk yield and calf crop.Out of 28 species most of the plant parts are leaves and seeds (21%) roots (18%), bark, flower, fruit (7%), gum and rhizome (4%).Herbal medicines given orally in the treatment. In many cases not only single plant but combination of plants, plant products are also used to cure retention of placenta in cattle. Present study indicates that tribals have sufficient knowledge about the therapeutic uses.



Dominant Families of Retained Placenta disease in cattle



Percentage Of Plant parts used in the Treatment.



V. ACKNOWLEDGEMENT

The author's is grateful to Principal Dr. Kiran Dixit and Dr. J. Sikka, Head of Botany Department, P.M.B. Gujarati Science College, Indore for research, library facilities. We are very much thankful to Dr. C.M. Solanki, Dr. S. Ray, for encouragement and valuable suggestion. We thank to veterinary doctors,

informant person for providing the necessary information.

VI. REFERENCES

- [1]. Beagley, J. C., Whitman, K. J., Baptiste, K. E. and Scherzer, J. (2010). DePhysiology and treatment of retained foetal membranes in cattle: A review.2; Journal of Veterinary Internal Medicine, 24:261–268.
- [2]. Christelle, M. et al. (2011). Investigation of plants used for the ethnoveterinary control of gastrointestinal parasites in Bénoué region, Cameroon. *Tropicultura* 29, 4, 205-211.
- [3]. Galav, P., S. Katewa et al. (2013). Traditional veterinary medicine by livestock owners of Rajasthan India. *Indian Journal of Traditional Knowledge* Vol. 12 (1) 47-55.
- [4]. Guard C (1999). Retained Placenta: Causes and Treatments. *Adv. Dairy Technol.*, 11: 81-86.
- [5]. Hanafi, EM., Ahmed, WM., El, Khadrar, HH., Zabaal, MM. (2011). An overview on placental retention in farm animals. *Middle-East J. Sci. Res.*, 7(5): 643-651.
- [6]. Jain, SK., Rao, RR. A Handbook of Field and Herbarium Method, (1977). Today and Tomorrows. (Oxford and IBH Publishing company, New Delhi.
- [7]. Jain, SK. Dictionary of Ethnoveterinary, Plant of India. (1999). Deep publication, New Delhi, India.
- [8]. McCorker, CM. (1986). An introduction to ethnoveterinary research and development. *J. Ethnobiol.*, 6: 129-149.
- [9]. McIntosh, RA. (1940). Retention of the Placenta. *Canadian J. Comparative Med.*, IV(2): 45-48.
- [10]. Misra KK., Kumar, KA. (2004). Ethno-veterinary practices among the Konda Reddi of East Godavari district of Andhra Pradesh. *Stud. Tribes Tribals*, 2(1): 37-44.
- [11]. Mudgal, V., Khanna, KK., Hajara, PK. Flora of Madhya Pradesh (1977). BSI Publication, Calcutta, India.
- [12]. Peters AR and Laven RA (1996). Treatment of bovine retained placenta and its effects. *Veterinary Research*, 139: 539–541.
- [13]. Singh, NP., Khanna, KK., Mudgal, V., Dixit, RD. (2001). Flora of Madhya Pradesh (BSI Publication, Calcutta, India) 2001.

- [14]. Verma, DM. Balakrishnan, Dixit, RD. (1993). Flora of Madhya Pradesh. BSI Publication, Calcutta, India. 1993.
- [15]. Verma, Sheetal and Singh ,S.P. (2008). Current and future .Underutilized medicinal plants and spices: Chemical status of herbal medicines Veterinary World, 1(11):347-350.
- [16]. Wetherill, GD. (1965). Retained placenta in the bovine. A brief review. Canadian Veterinary Journal, 6: 290- 294.