

Ayurveda single drug therapy for Prameha in Nighantu Sahitya: A review

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Abstract

Diabetes is one of the most rapidly increasing diseases in the contemporary context. Its swift global raise indicates that its causes are possibly closely associated with lifestyle and eating habits in the general population. The handling of Diabetes is majorly management and not curative in nature. Understanding the management of diabetes, so far, has not been very promising either in the prevention of its incidence or its complications.

The science of Ayurveda provides a huge repertoire of anti-diabetic drugs which needs further exploration. The descriptions of *Prameha vis-à-vis* Diabetes mellitus and its treatment are scattered in different classics of Ayurveda. This is an attempt to compile the information available from *Nighantu Sahitya* (the section of Ayurveda literature that predominantly deals with drugs, their morphology, properties, and actions) for documenting single drugs mentioned for *Prameha Roga* (mostly correlated to Diabetes Mellitus) and their potential in handling the disease. A total of 142 plant sourced drugs with *Pramehahara* activity enlisted from 12 *Nighantus* are included here. The paper accentuates the recognized sources of those single drugs, the botanical classification and their anti-diabetic potential. On observation, the members of Fabaceae were found to be most frequent in occurrence and hence has been a prime focus in this paper. A primary glance showed many drugs that are not in wide use for *Prameha* are enlisted here thus opening newer arenas for Diabetic research and clinical practice.

Keywords: *Prameha*; Ayurveda; *Nighantu*; Diabetes; Fabaceae

1. Introduction

Nighantu sahitya forms a major portion of all the classical Ayurveda literature specially pertaining to the aspects of *Dravyaguna*. Most of the *Nighantus* available, dating from the ancient ones to the recent 20th Cen. works, authors provide detailed information about individual drugs, their properties and actions. A cursory glance at *Nighantu sahitya* provides immense information about different drugs that can be utilised in the treatment of various diseased conditions effectively. The ancient *Nighantus* were actually *Kosas*, containing the synonyms and word meanings of names of *Dravyas*. Later *Nighantus* started giving details about the drugs along with synonyms such as description of properties, action and their uses in different diseases¹.

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The term *Prameha* is derived from two words- *Pra* and *Meha*. *Pra* means *prachura* referring to frequency and *mehana* refers to micturition. The term *Prameha* means frequent urination in verbatim. There are 20 different types of *Prameha* mentioned in classics. Ayurveda elucidates that *Bahu-drava-shleshma* and *Bahu-abaddha-meda* are the main pathological factors for *Prameha* and it exhibits through its cardinal symptoms such as *Prabhootha mutrata*, *Avila mutrata* and *Medodushti lakshanas*. The disease *Prameha* is analogous to the present-day condition of Diabetes. Diabetes involves high levels of blood glucose, frequent urination and the presence of glucose in urine^{2,3}.

Diabetes is a condition that is wide spread at pandemic proportions and poses a challenge to the health care infrastructure worldwide. There is a wide variety of treatment choices available for Diabetes acting at different levels of pathogenesis. However, at a global level, there is still huge scope for identification of a therapy which can act in an all-encompassing manner against the different factors involved in the pathogenesis of the condition. This need opens up newer arenas for research on the disease and its probable treatment protocols. There are numerous references of individual drugs as treatment for *Prameha* in *Nighantu sahitya*. This article attempts to compile and enlist the drugs which are mentioned as possessing *Pramehahara* property in *Nighantu sahitya* and understand their utility in treatment of Diabetes⁴.

2. Material and methods

A detailed literary screening of 26 Nighantus was done and drugs with terms like Madhumeha, Meha, Mehaghna, Mehaghni, Mehajit, Mehana, Mehanam, Mehanuth, Prameha, Pramehaha, Pramehahara, Pramehanam, Pramehanut, in karma, phalashruti or rogaghnata were enlisted. It was found that 217 drugs possessed Prameha hara activity. These drugs were classified based on the source as plant source, animal source, mineral source and some food and medical preparations. The list of plant sourced drugs which are told to be active against Prameha were considered for this paper. It was found that the drugs thus selected were told in 12 Nighantus out of the 26 screened. A total of 142 single drugs with Pramehahara activity were enlisted from the 12 Nighantus⁵⁻³⁰.

3. Results and discussion

The list of the 12 *Nighantus* is given in Table 1. It was noted that *Kaiyadeva Nighantu*⁵ has mentioned a maximum number of drugs with *Pramehahara* activity totalling up to 54 drugs followed by *Raja Nighantu*⁶ with its 31 drugs. *Bhavaprakasha*⁷ and *Abhidhanamanjari*⁸ have mentioned 29 *Pramehaharadravyas* each (Table 1).

Table 1 List of *Nighantu* selected with their timeline, author and number of *Pramehahara* drugs

Sl. No.	Name of nighantu	Timeline	Author	No. of Pramehahara drugs
1.	<i>Ashtanga Nighantu</i> ⁹	8 th Cen. A.D.	Vahatacharya	20
2.	<i>Madanadi Nighantu</i> ¹⁰	10 th Cen. A.D.	Candranandana	22
3.	<i>Dhanvantari Nighantu</i> ¹¹	11 th Cen. A.D.	Mahendra Bhogika	17
4.	<i>Dravyaguna Sangraha</i> ¹⁶	11 th Cen. A.D.	Chakrapanidutta	4
5.	<i>Shodala Nighantu</i> ¹²	12 th Cen. A.D.	Shodala	3
6.	<i>Madanapala Nighantu</i> ¹³	1374 A.D.	Madanapala	21
7.	<i>Kaiyadeva Nighantu</i> ⁵	1425 A.D.	Kaiyadeva	54
8.	<i>Bhavaprakasa Nighantu</i> ⁷	16 th Cen. A.D.	Bhavamishra	29
9.	<i>Raja Nighantu</i> ⁶	14 th Cen. A.D.	Narahari Pandita	31
10.	<i>Rajavallabha Nighantu</i> ¹⁴	18 th Cen. A.D.	Rajavallabha	6
11.	<i>Abhidhanamanjari</i> ⁸	1952 A.D.(20 th Cen.)	Bhishak Acharya	29
12.	<i>Priya Nighantu</i> ¹⁵	1983 A.D.	Priya Vrat Sharma	24

A glance at the list of *Pramehaharadravyas* show that, some drugs are explained as having *Pramehahara* activity in multiple *Nighantus*. It was observed that *Khadira* is mentioned in most of the *Nighantus* which counts up to 9. The details of different drugs and the frequency of their mention in *Nighantus* is tabulated (Table 2).

Table 2 The *Pramehahara* drugs and the number of *Nighantus*

Sl. No	Dravya	Botanical source	No. of Nighantus
1.	Khadira	<i>Acacia catechu (L.f.) Willd</i>	9
2.	Guduchi	<i>Tinospora cordifolia (Willd.) Miers</i>	8
3.	Devadaru	<i>Cedrus deodara (Roxb. Ex Lamb.) G.</i>	8
4.	Murva	<i>Marsdeniastenacissima (Roxb.) Moon</i>	8
5.	Asana/ Beejaka	<i>Pterocarpus marsupiumRoxb.</i>	7
6.	Nimba	<i>Azadirachta indicaA.Juss.</i>	7
7.	Aragwada	<i>Cassia fistula L.</i>	6
8.	Tinisha	<i>Desmodiumoojeinese (Roxb.) H.</i>	6
9.	Haridra	<i>Curcuma longa L.</i>	5
10.	Karanja	<i>Pongamia pinnata (L.) Pierre</i>	5
11.	Manjishta	<i>Rubia cordifolia L.</i>	5
12.	Varahi	<i>Dioscoreabublifera L.</i>	5
13.	Yava	<i>Hordeum vulgare L.</i>	5
14.	Amalaki	<i>Phyllanthus emblica L.</i>	4
15.	Arjuna	<i>Terminalia arjuna (Roxb.) W. & A.</i>	4
16.	Gokshura	<i>Tribulus terrestris L.</i>	4
17.	Kirathatikta	<i>Swertia chirata Buch.-Ham. ex Wall.</i>	4
18.	Meshashrungi	<i>Marsdenia sylvestris (Rez.) P.I. Forst.</i>	4
19.	Patola	<i>Trichosanthes dioica Roxb.</i>	4
20.	Ashwakarna	<i>Dipterocarpus alatus Roxb. Ex. G. Don</i>	3
21.	Bhallataka	<i>Semecarpus anacardium L. f.</i>	3
22.	Bhunimba/ Kalamegha	<i>Andrographis paniculata (Burm.f.) Nees</i>	3
23.	Daruharidhra	<i>Berberis aristata DC.</i>	3
24.	Dhava	<i>Anogeissus latifolia (Roxb. Ex DC.)</i>	3
25.	Kutaja	<i>Holarrhenapubescens Wall. Ex A.DC</i>	3
26.	Kakuba	<i>Terminalia myriocarpa Van Heurck&Müll. Arg.</i>	3
27.	Karavella	<i>Momordica charantia L.</i>	3
28.	Palasha	<i>Butea monosperma (Lam.) Taub</i>	3
29.	Pata	<i>Cissampelos pareira L.</i>	3
30.	Patala	<i>Stereospermumchelonoides (L.f) DC</i>	3
31.	Shwetha Patala	<i>Stereospermumtertragonum DC</i>	3
32.	Pippali	<i>Piper longum L.</i>	3
33.	NeelaSaireyaka	<i>BarleriastrigosaWilld.</i>	3
34.	Shimshapa	<i>Dalbergia sissoo Wight & Arn.</i>	3

35.	<i>Snuhi</i>	<i>Erphorbianeriifolia L.</i>	3
36.	<i>Vasa</i>	<i>Justicia adhatodaL.</i>	3
37.	<i>Yashtimadhu</i>	<i>Glycyrrhiza glabra L.</i>	3
38.	<i>Arkapushpi</i>	<i>Holastemmaada-kodienSchult.</i>	2
39.	<i>Ashmantaka</i>	<i>Ficus rumphiiBlume</i>	2
40.	<i>Baakuchi</i>	<i>Cullen corylifolium (L.) Medik.</i>	2
41.	<i>Bhandi</i>	<i>Albizia lebbbeck L.</i>	2
42.	<i>Gojihwa</i>	<i>Elephantopusscaber L.</i>	2
43.	<i>Hareetaki</i>	<i>Terminalia chebula Retz.</i>	2
44.	<i>Jathiphala</i>	<i>Myristica fragransHoutt.</i>	2
45.	<i>Kakamachi</i>	<i>Solanum americanum Mill.</i>	2
46.	<i>Kampillaka</i>	<i>Mallotus philippensis (Lam.) Müll.Arg.</i>	2
47.	<i>Kantakari</i>	<i>Solanum virginianum L.</i>	2
48.	<i>Kathaka</i>	<i>Strychnospotatorium L. f.</i>	2
49.	<i>Katphala</i>	<i>Myrica esculenta Buch. – Ham. Ex D Don</i>	2
50.	<i>Kadalli</i>	<i>Musa paradisiaca L.</i>	2
51.	<i>Khadara</i>	<i>Acacia polyantha A.Spreng.</i>	2
52.	<i>Khebuka</i>	<i>Cheilocostus speciosus (J.Koenig) C.D.Specht</i>	2
53.	<i>Koshtaki</i>	<i>Luffa acutangula (L.) Roxb.</i>	2
54.	<i>Mahanimba</i>	<i>Melia azedarach L.</i>	2
55.	<i>Pashanabedha</i>	<i>Bergenia pacumbis (Buch. - Ham. Ex D. Don) C.T. Wu & J. T. Pan</i>	2
56.	<i>Rajadhana</i>	<i>Manilkara hexandra (Roxb.) Dubard</i>	2
57.	<i>Rajamasha</i>	<i>Vigna unguiculata subsp. unguiculata (L.) Walp</i>	2
58.	<i>Sarshapa</i>	<i>Brassica campestris L.</i>	2
59.	<i>Shala</i>	<i>ShorearobustaGaertn. f.</i>	2
60.	<i>Shallaparni</i>	<i>Desmodiumgangeticum (L.) DC.</i>	2
61.	<i>Sruvavruksha (Vyagrapadhi)</i>	<i>Gymnosporiamontana (Roth) Benth.</i>	2
62.	<i>Tila</i>	<i>Sesamum indicum L. (its oil)</i>	2
63.	<i>Tuvaraka</i>	<i>Hydnocarpus laurifoliaSleumer</i>	2
64.	<i>Udumbara</i>	<i>Ficus racemosa L.</i>	2
65.	<i>Aaruka</i>	<i>Prunus persica (L.) Batsch</i>	1
66.	<i>Chitraka</i>	<i>Plumbago zeylanica L.</i>	1
67.	<i>Allukam</i>	<i>Solanum tuberosum L.</i>	1
68.	<i>Amra</i>	<i>Mangifera indica L.</i>	1
69.	<i>Ashwagandha</i>	<i>Withaniasomnifera (L.) Dunal</i>	1
70.	<i>Bala</i>	<i>Sida cordifolia L.</i>	1
71.	<i>Bhoomiamalaki</i>	<i>Phyllanthus maderaspatensis L.</i>	1
72.	<i>Bhurja</i>	<i>Betula utilis D. Don</i>	1

73.	Brahmi	<i>Bacopa monnieri</i> (L.) Wettst	1
74.	Bruhathi	<i>Solanum violaceum</i> Ortega	1
75.	Chanaka	<i>Cicer arietinum</i> L.	1
76.	Chandrashura	<i>Lepidium sativum</i> L.	1
77.	Charmivruksha	<i>Ehretialaavis</i> Roxb.	1
78.	Chilli	<i>Chenopodium album</i> L.	1
79.	Devadhali	<i>Luffa echinata</i> Roxb.	1
80.	Danti	<i>Baliospermumsolanifolium</i> (Burm.) Suresh	1
81.	Dronapushpi	<i>Leucas cephalotes</i> (Roth) Spreng.	1
82.	Duralaba/ Dhanvayasa	<i>Fagoniacretica</i> L.	1
83.	Eranda	<i>Ricinus communis</i> L.	1
84.	Gajakarni	<i>Leea macrophylla</i> Roxb. Ex Hornem	1
85.	Gontaha	<i>Ziziphus xylopyrus</i> (Retz.) Willd.	1
86.	Gopalakarkataki	<i>Carica papaya</i> L.	1
87.	Guggulu	<i>Commiphoramukul</i> (Hook. Ex Stocks)	1
88.	Harenuka	<i>Symphoremampolyandrum</i> Wight	1
89.	Indravaruni	<i>Citrullus colocynthis</i> (L.) Schrad.	1
90.	Jambu	<i>Syzygium caryophyllatum</i> (L.) Alston	1
91.	Kalaya	<i>Lathyrus sativus</i> L.	1
92.	Karkataki	<i>Momordica dioca</i> Roxb. Will.	1
93.	Kasareuka	<i>Actinescirpusgrossus</i> var. <i>kysoor</i> (Roxb.) Nolite	1
94.	Katuki	<i>Picrorhizakurroa</i> Royle ex Benth.	1
95.	Kharavi	<i>Strobilanthes callous</i> Nees	1
96.	Kinniho / Kinihi (Shwetha shirisha)	<i>Albizia procera</i> Benth.	1
97.	Kshavaka	<i>Centipediaelatinoides</i> (Less.) Benth.b& Hook. F. exo. Hoffin.	1
98.	Kulattha	<i>Macrotyloma uniflorum</i> (Lam.) Verdc.	1
99.	Kushmanda	<i>Benincasahispida</i> (Thub.) Cogn.	1
100.	Kushta	<i>Saussurea costus</i> (Falc.) Lipsch.	1
101.	Loni	<i>Portulaca quadrifida</i> L.	1
102.	Badi Loni	<i>Portulaca oleracea</i> L.	1
103.	Mundi	<i>Sphaeranthus indicus</i> L.	1
104.	Mangalyam	<i>Ficus religiosa</i> L.	1
105.	Masura	<i>Lens culinaris</i> Medic.	1
106.	Masuri	<i>Coriaria nepalensis</i> Wall.	1
107.	Krishna Mokshaka	<i>Elaeodendron glaucum</i> (Rottb.) Pers.	1
108.	Shwetha Mokshaka	<i>Schrebera swietenoides</i> Roxb.	1
109.	Mudga	<i>Vigna radiata</i> (L.) R. Wilezek	1
110.	Lathakasturika	<i>Abelmoschus moschatus</i> Medik.	1

111.	Narikela	<i>Cocos nucifera</i> L.	1
112.	Nivara	<i>Hygroryza aristata</i> (Retz.) Nees ex Wight & Arn.	1
113.	Paribhadra	<i>Erythrina variegata</i> L.	1
114.	Madanaphala	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	1
115.	Pindallu /Pindalluka	<i>Colocasia antiquorum</i> Schott	1
116.	Chirabillwa	<i>Holoptelea integrifolia</i> Planch.	1
117.	Rasona	<i>Allium sativum</i> L.	1
118.	Rudanthi	<i>Cressacretica</i> L.	1
119.	Saptaparna	<i>Alstoniascholaris</i> (L.) R.Br.	1
120.	Shweta sariva	<i>Hemidesmus indicus</i> (L.) R. Br. Ex Schult.	1
121.	Krishna sariva	<i>Ichnocarpus frutescens</i> (L.) W.T.Aiton	1
122.	Shalmalli	<i>Bombax ceiba</i> L.	1
123.	Shatavari	<i>Asparagus racemosus</i> Willd.	1
124.	Shigru	<i>Moringa oleifera</i> Lam.	1
125.	Shitivara	<i>Celosia argentea</i> L. var. <i>cristata</i> (L.) Kuntze	1
126.	Shrungataka	<i>Trapa natans</i> var. <i>bispinosa</i> (Roxb.) Makino	1
127.	Sthalapadmini / Sthalapadma	<i>Hibiscus mutabilis</i> L.	1
128.	Suneesha	<i>Blepharis edulis</i> (Forssk.) Pers.	1
129.	Tinduka	<i>Diospyros discolor</i> Willd.	1
130.	Trapusa	<i>Cucumis sativus</i> L.	1
131.	Triputa	<i>Allophylus serratus</i> (Hiern.) Kurz.	1
132.	Tumburu	<i>Zanthoxylum armatum</i> var. <i>armatum</i> DC.	1
133.	Tuvari	<i>Eruca vesicaria</i> (L.) Cav.	1
134.	Ushira	<i>Chrysopogon zizarioides</i> (L.) Roberty	1
135.	Bimbi	<i>Coccinia grandis</i> L.	1
136.	Vastuka	<i>Chenopodium murale</i> L.	1
137.	Vatapatri (Parnabeeja)	<i>Bryophyllum pinnatum</i> (Lam.) Oken.	1
138.	Vetraka	<i>Calamus rotang</i> L.	1
139.	Kuppilu	<i>Strychnos nux-vomica</i> L.	1
140.	Vrudhadharu	<i>Argyria nervosa</i> (Burm. F.) Boj.	1
141.	Chhagakarna	<i>Acacia leucophloea</i> (Roxb.) Willd.	1
142.	Peeta Saireyaka	<i>Barleria cristata</i> L. / <i>Barleria prionitis</i> L.	1

It was observed that the drugs belonged to 69 botanical families. The number of drugs from each family with *Pramehahara* activity was also tabulated. (Table 3).

Table 3 The number of drugs in each botanical family with *Pramehahara* activity

Sl. No.	No. of drugs	Family
1.	14	Fabaceae
2.	8	Cucurbitaceae
3.	6	Asteraceae, Euphorbiaceae
4.	5	Acanthaceae, Apocyanaceae, Mimosaceae, Solanaceae
5.	3	Combretaceae, Malvaceae, Moraceae, Poaceae
6.	2	Anacardiaceae, Arecaceae, Asclepiadaceae, Bignoniaceae, Brassicaceae, Celastraceae, Chenopodiaceae, Convolvulaceae, Dipterocarpaceae, Meliaceae, Menispermaceae, Plantaginaceae, Portulacaceae, Rubiaceae

3.1. Anti-diabetic drugs from Fabaceae

On classifying the drugs on the basis of botanical families, it was noted that 14 drugs belonging to Fabaceae were mentioned to be useful in treatment of *Prameha*. The list of drugs along with its utility in *Prameha* is tabulated (Table 4). Plants of Fabaceae are known to be rich in prenylated flavonoids, alkaloids and triterpenoid saponins³¹. The isolated compounds have shown diverse biological activities and the plant materials have been used to treat a number of diseases and ailments. The drugs like *chanaka*, *kalaya*, *masura*, *mudga* and *rajamasha* are dietetic products which could act as food supplements with anti-diabetic potentials. The patients of diabetes can include these drugs in food and attain the benefits of anti-diabetic effect as well.

Table 4 The drugs of Fabaceae family having anti-diabetic potential

Sl. No	Dravya	Botanical name	Utility	Nighantus
1	Asana/ Beejaka	<i>Pterocaarpus marsupium</i> Roxb.	Oushadhi	Ashtanga Nighantu ⁹ , Madanadi Nighantu ¹⁰ , Bhavaprakasha Nighantu ⁷ , Abhidanamanjari ⁸ , Madanaphala Nighantu ¹³ , Kaiyadeva Nighantu ⁵ , Priya Nighantu ¹⁵
2	Baakuchi	<i>Cullen corylifolium</i> (L.) Medic	Oushadi	Kaiyadeva Nighantu ⁵ , Bhavaprakasha Nighantu ⁷
3	Chanaka	<i>Cicer arietinum</i> L.	Ahara	Raja Nighantu ⁶
4	Kalaya	<i>Lathyrus sativus</i> L.	Ahara	Kaiyadeva Nighantu ⁵
5	Karanja	<i>Pongamia pinnata</i> (L.) Pierre	Oushadhi	Madanadi Nighantu ¹⁰ , Dravyaguna Sangraha ¹⁶ , Madanapala Nighantu ¹³ , Bhavaprakasha Nighantu ⁷ , Rajavallabha Nighantu ¹⁴
6	Masura	<i>Lens culinaris</i> Medic.	Ahara	Kaiyadeva Nighantu ⁵
7	Mudga	<i>Vigna radiata</i> (L.) R. Wilezek	Ahara	Kaiyadeva Nighantu ⁵
8	Palasha	<i>Butea monosperma</i> (Lam.) Taub	Oushadhi	Ashtanga Nighantu ⁹ , Raja Nighantu ⁶ , Abhidanamanjari ⁸
9	Paribhadra	<i>Erythrina variegata</i> L.	Oushadhi	Rjavallaba Nighantu ¹⁴
10	Rajamasha	<i>Vigna unguiculata</i> subsp. <i>unguiculata</i> (L.) Walp	Ahara	Kaiyadeva Nighantu ⁵ , Rajavallabha Nighantu ¹⁴

11	<i>Shallaparni</i>	<i>Desmodium gangeticum</i> (L.) DC.	Oushadhi	<i>Dhanwantari Nighantu</i> ¹¹ , <i>Kaiyadeva Nighantu</i> ⁵
12	<i>Shimshapa</i>	<i>Dalbergia sissoo</i> Wight & Arn.	Oushadhi	<i>Ashtanga Nighantu</i> ⁹ , <i>Abhidhanamanjari</i> ⁸ , <i>Madanadi Nighantu</i> ¹⁰
13	<i>Tinisha</i>	<i>Desmodium oojeinense</i> (Roxb.) H.	Oushadhi	<i>Madanadi Nighantu</i> ¹⁰ , <i>Madanapala Nighantu</i> ¹³ , <i>Kaiyadeva Nighantu</i> ⁵ , <i>Bhavaprakasha Nighantu</i> ⁷ , <i>Priya Nighantu</i> ¹⁵ , <i>Abhidhanamanjari</i> ⁸
14	<i>Yashtimadhu</i>	<i>Glycyrrhiza glabra</i> L.	Oushadhi	<i>Ashtanga Nighantu</i> ⁹ , <i>Madanadi Nighantu</i> ¹⁰ , <i>Abhidhanamanjari</i> ⁸

Asana, one of the most commonly used drugs for *Prameha*, belongs to Fabaceae family. Aqueous extract of *P.marsupium* shows significant efficacy in decreasing the FBS and PPBS and also decreases TNF- α cytokine levels. The phenolic constituents from heartwood of *P.marsupium*, marsupsin, pterosupsin, pterostilbene also are attributed to anti-hyperglycemic activity. It also exhibits various activities such as hepato-protective, anti-inflammatory, antioxidant, antiproliferative, COX-2 inhibition, anti-hyperinsulinaemic, anti-hypertriglyceridaemic, anti-cataract, and anti-fungal activities. Hence, *Asana* proves to be an all-encompassing mode of treatment for Diabetes and prevention of its complications³².

Other drugs such as *Bakuchi*, *Karanja*, *Palasha*, *Paribhadra*, *Shalaparni*, *Shimshapa*, *Tinisha* and *Yashtimadhu* belonging to Fabaceae also have anti-diabetic effect and can be potential candidates for development of anti-diabetic formulations⁵⁻³¹.

4. Conclusion

A detailed compilation of *Prameha* haradravyas from Nighantu sahitya opens up new arenas of research and a wide range of treatment options targeting different sections of the *Prameha* pathophysiology. The above review is a preliminary consolidation of data available in the literature that needs further exploration in terms of research and clinical purview.

Compliance with ethical standards

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Disclosure of conflict of interest

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