



**A COMPREHENSIVE REVIEW ON YASHTIMADHU (GLYCYRRHIZA GLABRA LINN.) FROM BRIHATRAYI WITH SPECIAL REFERENCE TO KALPANA**

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**ABSTRACT**

*Brihatrayi* a classical textbook of Ayurveda, considered as most authentic and standard references for *Ayurveda*. It's also called as 'Elite three of Ayurveda' or the 'Greater Trio of Ayurveda' or '*Brihatrayi*. *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Sangraha* and *Ashtanga Hridaya* are known as '*Brihatrayi*'. In *Samhita* numbers of Medicinal plants are prescribed in various disease conditions. Among them, *Yashtimadhu* is a widely used medicine which is commonly known as '*Mulethi*'. A huge number of formulations are given in *Brihatrayi* which contain *Yashtimadhu* as one of the ingredients. In the present review an attempt was made to highlight the available *Kalpana* and their indication in which *Yashtimadhu* mentioned as one of the ingredient which will helpful for people to easily track out various *Yashtimadhu Kalpana* and their uses, and it's straight forward the way of *Chikitsa*.

**Keywords:** *Yashtimadhu*, *Madhuka*, *Glycyrrhiza glabra* Linn., *Brihatrayi*, *Kalpana*

**INTRODUCTION**

Plants are one of the most important sources of medicines since ages. Plants are a centrepiece of *Ayurveda* and other traditional system of medicines. *Yashtimadhu* is commonly known as *Madhuka*, *Madhyashti*, *Klitaka* and Sweet wood by *Ayurvedic* practitioner. It has been used in various diseases in *Vedic* literature and in *Samhita*. In ancient *Ayurvedic* system, more than 1250 preparations are described containing *Yashtimadhu* as one of its constituents. *Charaka Samhita* has quoted 50 *mahakashaya* (Group of 10 medicines) among which *Yashtimadhu* is included in 11 *Mahakashaya* i.e. *Jivaneeya* (Enlivening), *Sandhaneeya* (Enhance Healing), *Varnya* (Complexion Enhancing), *Kanthyā* (Improving Voice), *Kandughna* (Alleviate Itching), *Snehopaga* (Adjuvant of unctuous), *Vamanopaga* (Adjuvant for emesis), *Chardinigrahana* (Antiemetic), etc<sup>1</sup>. *Acharya Sushruta* has mentioned it in *Sarivadigana*, *Anjanadigana*, *Ambasthadigana*, *Nygrodhadigana* and *Utpaladigan*<sup>2</sup>. It is the most prescribing herb after Ginseng in Traditional Chinese Medicine<sup>3</sup> used for ailments related to spleen, liver and kidney<sup>4</sup>. It has been also referred as 'the grandfather of herbs'<sup>5</sup>. *Yashtimadhu* is botanically known as *Glycyrrhiza glabra* Linn. This belongs to Fabaceae family. The plant is an herbaceous perennial of 1 to 2 m height and has a long sturdy primary taproot. The taproot is 15 cm long and subdivided into 3 to 5 subsidiary roots, 1.25 m in length. There are several horizontal woody stolons which may reach 8 m. New stems are produced every year. They are sturdy, erect, branched either from the base or from further up and are generally rough at the top. The foliage leaves are alternate, odd pinnate and 10 to 20 cm long. The leaflets are in 3 to 8 pairs. The stipules are

very small and drooping. The axillary inflorescences are upright, spike-like and 10 to 15 cm long. The individual flowers are 1 to 1.5 cm long, bluish to pale violet and short pedicel. The calyx is short, bell shaped and glandular-haired. The fruit is a pod, 1.5 to 2.5 cm long and 4 to 6 mm wide. It is erect and splayed, flat with thick sutures, glabrous, somewhat reticulate-pitted and usually has 3 to 5 brown, reniform seeds<sup>6</sup>. Although it's native of Mediterranean regions but now it's cultivated in Punjab, Jammu and Kashmir and South India<sup>7</sup>. Another variety is known as *Jethimala* (*Taverniera nummularia* Baker; Fabaceae) found in Saurashtra, Porabandar and Kutch (different regions of Gujarat) is being used as substitute of *Glycyrrhiza glabra* Linn.<sup>8</sup> *Yashtimadhu* plays an important part in *Ayurveda* and *Siddha* (Indian Traditional Medicine Systems) arrangement of drug acting as ulcer protective, demulcent, expectorant, antitussive and purgative<sup>9</sup>. Many research works have been carried out on different aspects of *Glycyrrhiza glabra* Linn. But research regarding particular *kalpana* is not observed to be studied. Keeping all this point into consideration, an attempt has been made to evaluate various formulations of *Yashtimadhu* from *Brihatrayi*.

In this review article *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Sangraha* and *Ashtanga Hridaya* has been referred thoroughly for the formulations containing *Yashtimadhu* as one of the ingredients. All the compiled data are arranged systemically in the tabular form and presented scientifically according to their various *Kalpanas* i.e. *Kashaya*, *Gutika*, *Ghrita*, *Taila*, *Lepa*, *Churna*, *Basti* etc., their mode of administration and indications.

Table 1: *Yashtimadhu Kalpana* with indications and dosage forms mentioned in *Brihatrayi*

No	Kalpana	Indication	Reference	Mode of A.
<b>Kashaya Kalpana</b>				
1.	<i>Madanphala Kashaya-Pana</i>	Vamana	Ch.Su.15/9	Int.
2.	<i>Madhukadikashaya-Pana</i>	Vamana	Ch.Vi.8/135	Int.
		Jwara	Ch.Chi.3/205 Su.Ut.39/214	
		Vamana karma	Su.Su.43/3	
3.	<i>Jimutakakashaya- Pana</i>	Vamana	Ch. kalp.2/9	Int.
4.	<i>Dhamargavadikashayayoga-Vamana</i>	Gulma, Udaraarati	Ch. kalp.4/8	Int.
5.	<i>Gruhakukutabha Kashaya-Lepa</i>	Abhyantaraswitra	Su.Chi.9/19	Ext.
6.	<i>Priyangavadi Kwatha –Pana</i>	Luta damshavisha	Su. Kalp.8/132	Int.
7.	<i>Sarivadigana Kwatha-Pana</i>	Jwara	Su.Ut.39/177	Int.
8.	<i>Padmakadishitakashaya-Pana, Lepa</i>	Jwara, Daha	Su.Ut.39/182	Int., Ext.
9.	<i>Patoladi Kwatha</i>	Pralap, Vishama Jwara	A.S.Chi.2/57	Int.
		Raktapitta	A.H.Chi.2/28	
		Antardaha, Trisha, Bhrama, Sannipataja Visarpa	A.H.Chi.17/31	
10.	<i>Virtaradi Kwatha-Pana</i>	Pittaja Ashamari	A.S.Chi.13/8	Int.
11.	<i>Triphaladi Kashaya-Pana</i>	Abhyantara Vidradhi	A.S.Chi.15/9	Int.
12.	<i>Patangadi Kwatha-Pana, Bhojana</i>	Dantanadi	A.S.Ut.26/43	Int.
13.	<i>Trayantyadi kashaya</i>	Vidradhi, Gulma, Visarpa, Daha, Moha, Mada, Jwara, Trishna	A.H.Chi.13/12	Int.
14.	<i>Darviyadi Kwatha</i>	Visarpa	A.H.Chi.18/7	Int.
<b>Gutika Kalpana</b>				
15.	<i>Brimhani-gutika</i>	Paramvrishya, Brimhana, Balavardhana	Ch.Chi.2/1(27)	Int.
16.	<i>Apatyakarishastikadi gutika</i>	Apatyakara	Ch.Chi.2/2(5)	Int.
17.	<i>Eladigutika</i>	Kshat-kshina	Ch.Chi.11/21	Int.
18.	<i>Mrutasanjivanigutika-Pana, Ghreya, Vilepana, Daharana, Grahana</i>	Sarva-Visha	Ch.Chi.23/56	Int., Ext
19.	<i>Kukutandakapanigutika-Pratisarana</i>	Vrana	Su.Chi.1/99	Ext.
20.	<i>Drakshadisarpiguda</i>	Kshama, Kshina, Raktagulma	A.S.Chi.5/27	Int.
21.	<i>Madhukapushpadimodaka</i>	Kshinaoja, Vataashruka	A.S.Chi.5/28	Int.
22.	<i>Priyaladimodaka-Bhakshya</i>	Apastanya	A.S.Ut.1/42	Int.
		Sishuprinana	A.H.Ut.1/38	Int.
23.	<i>Khadiradigutika-Mukha dharana</i>	Mukharoga	A.H.Ut.22/91	Int.
<b>Ghrita Kalpana</b>				
24.	<i>Vajikaranaghrita</i>	Paramvrishya, Brimhana, Balavardhana	Ch.Chi.2/1(27)	Int.
25.	<i>Vrishyaghrita-Pana</i>	Vrishya, Balya, Varnya, Kanthya, Uttam Brimhana	Ch.Chi.2/2(21)	Int.
26.	<i>Shatavaryadighrita-Lhiya</i>	Raktapitta	Ch.Chi.4/95	Int.
		Pittajayoniroga	Ch.Chi.30/66	
27.	<i>Rohinadhyaghrita-Pana</i>	Paittikgulma, Jwara, Trishna, Shula, Bhrama	Ch.Chi.5/115	Int.
28.	<i>Bhallatakadhyaghrita</i>	Kaphajagulma	Ch.Chi.5/145	Int.
		Kaphagulma, Pliha, Kasa, Shwasa, Grahani, Panduroga	A.S.Chi.16/27	
29.	<i>Prapaundarikadisarpi-nasya</i>	Swarya	Ch.Chi.8/91	Ext.
30.	<i>Jivantayadighrita</i>	Vyadhisamuhanasha	Ch.Chi.8/111	Int.
		Rajyakshama	A.S.Chi.7/9	
		Rograjya (Rajyakshama)	A.H.Chi.5/16	
31.	<i>Amrutaprasaghrita-Prasya, Aasina</i>	Kshat-kshina	Ch.Chi.11/36	Int.
		Nastasukra, Kshata-kshina, Durbal	A.H.Chi.3/97	
32.	<i>Haridradighrita</i>	Pandu	Ch.Chi.16/53	Int.
33.	<i>Trayushnadyaghrita-Pichu, Pana</i>	Hridaroga	Ch.Chi.26/87	Ext.
		Hridaroga, Pandu, Grahani	A.S.Chi.8/30	
34.	<i>Kasherukadhyaghrita-Pana</i>	Pittaja- Hridaroga	Ch.Chi.26/94	Int.
35.	<i>Mayuradighrita-Pana, Basti, Abhyanjana, Navana</i>	Siroroga, Ardita, Urdhvajatrugata roga	Ch.Chi.26/163	Int., Ext
		Sarvaurdhvajaturugajita	A.H.Ut.24/47	
36.	<i>Parushakaghrita</i>	Vata-rakta, Kshat-kshina, Visarpa, Paittikajwara	Ch.Chi.29/55	Int.
37.	<i>Jivaniyaghrita- Pana</i>	Vatarakta	Ch.Chi.29/72	Int.
38.	<i>Ropakaghrita</i>	Agnidagdha	Su.Su.12/27	Ext.
		Annad	Su.Sa.10/50	
		Garbhavedana	Su.Sa.10/61	
		Netraabhighata	Su.Chi.2/44	
		Pittapradhanavatarakta	Su.Chi.5/8	
		Arsha	Su.Chi.6/4	
39.	<i>Mulethisiddhaghrita-Pana, Parisechana</i>	Urahakshata	A.H.Chi.3/93	Int.

40.	<i>Kushadighrita-Bhojana</i>	<i>Pittaja Ashmari</i>	<i>Su.Chi.7/11</i> <i>A.H.Chi.11/24</i>	Int.
41.	<i>Dhavadighrita-Pana, Abhyanga</i>	<i>Pittaja Kustha</i>	<i>Su.Chi.9/7</i>	Int., Ext
42.	<i>Mahatiktakaghrita</i>	<i>Kustha, Vishama Jwara, Gulma</i> <i>Raktapitta, Hridaroga,</i> <i>Unmada, Pidaka, Galganda, Raktapradara,</i> <i>Gandamala, Shlipada, Panduroga, Visarpa</i> <i>Pittaja kustha, Visarpa, Pitika, Daha, Truta,</i> <i>Bharama, Pandu, Ganda, Apachi</i> <i>Dustanadivrana,</i>	<i>Su.Chi.9/8</i> <i>A.H.Chi.19/9</i>	Int.
43.	<i>Karanjadighrita</i>	<i>Dustavrana, Nadivrana,</i> <i>Sadhyachimmavrana</i>	<i>Su.Chi.16/17</i>	Int.
44.	<i>Ajeyaghrita</i>	<i>Sarvavisha</i>	<i>Su. Kalp.2/47</i>	Int.
45.	<i>Kshirivrukshadighrita- Karnapurana</i>	<i>Paittika Karnashula</i>	<i>Su.Ut.21/30</i>	Ext.
46.	<i>Dashakshirghrita –Nasya</i>	<i>Pratishyaya</i>	<i>Su.Ut.24/40</i>	Ext.
47.	<i>Baladi ghrita- Pana, Lehya, Khadhya</i>	<i>Shula in Atisara</i> <i>Mutradosha</i>	<i>Su.Ut.40/77</i> <i>Su.Ut.58/58</i>	Int. Int.
48.	<i>Payoghritamadhu- Pana</i>	<i>Shula in Atisara</i>	<i>Su.Ut.40/80</i>	Int.
49.	<i>kshodrayuktaghrita –Lihya</i>	<i>Kasa</i>	<i>Su.Ut.52/17</i>	Int.
50.	<i>Mahabalamghrita- Pana</i>	<i>Jivaniya, Vrishya</i>	<i>Su.Ut.58/66</i>	Int.
51.	<i>Phalaghrita</i>	<i>Vandhya</i>	<i>Su.Ut.62/28</i>	Int.
52.	<i>Abhirvadighrita</i>	<i>Pittastra</i>	<i>A.S.Chi.3/31</i>	Int.
53.	<i>Ksharaghrita- Pana</i>	<i>Kasa, Shwasa, Hridaroga, Parshwashula,</i> <i>Grahani, Gulma</i>	<i>A.S.Chi.4/4</i>	Int.
54.	<i>Yashtiyadighrita- Pana, Sechana, Tarpana, Nasya</i>	<i>Kshataja-kasa</i> <i>Sosha</i> <i>Sarvanetraabhighata</i>	<i>A.S.Chi.5/17</i> <i>A.H.Ut.2/50</i> <i>A.H.Ut.26/18</i>	Int., Ext.
55.	<i>Madhukadighrita</i>	<i>Kshata-kshina, Raktagulma</i>	<i>A.S.Chi.5/21</i>	Int.
56.	<i>Nagabalasarp</i>	<i>Pittarakta, Kshatakshaya</i>	<i>A.S.Chi.5/31</i>	Int.
57.	<i>Khajuradighrita</i>	<i>Shiraparshawaanshavedana</i>	<i>A.S.Chi.7/10</i>	Int.
58.	<i>Parasaraghrita</i>	<i>Rajyakshama</i>	<i>A.S.Chi.7/18</i>	Int.
59.	<i>Sukumaraghritam-Anna, Pana</i>	<i>Kantikara, Balya</i>	<i>A.S.Chi.15/24</i>	Int.
60.	<i>Surahavyadighrita</i>	<i>Vatajwara</i>	<i>A.S.Ut.2/23</i>	Int.
61.	<i>Bhadradaruvadighrita- Pana, Abhyanga, Mardana</i>	<i>Vatajwara</i>	<i>A.S.Ut.2/23</i>	Int.
62.	<i>Brihatiphaladighrita</i>	<i>Chardi, Trishna, Hidma,</i> <i>Shwasa, Astrapitta</i>	<i>A.S.Ut.2/37</i>	Int.
63.	<i>Bhutravaghrita-Pana</i>	<i>Bhuta, Grahaghna</i> <i>Grahaghna</i>	<i>A.S.Ut.8/11</i> <i>A.H.Ut.5/19</i>	Int.
64.	<i>Patoladighrita</i>	<i>Vidrathi, Jwara</i> <i>Vidrathi, Jwara, Ghranaroga,</i> <i>Karnaroga, Aashyuroga, Dushtaarau</i>	<i>A.S.Ut.16/5</i> <i>A.H.Ut.13/9</i>	Int.
65.	<i>Mahatraiphalaghrita</i>	<i>Drishtivikara</i>	<i>A.S.Ut.16/7</i>	Int.
66.	<i>Sarpimanda-Nasya</i>	<i>Danta Vidradhi</i>	<i>A.S.Ut.26/26</i>	Ext.
67.	<i>Kshirasarp-Nasya, Kavala, Bhojana</i>	<i>Pitta Rohini</i>	<i>A.S.Ut.26/44</i>	Ext., Int
68.	<i>Abhayamaladighrita-Pana</i>	<i>Visha</i>	<i>A.S.Ut.48/18</i>	Int.
69.	<i>Shankhapushpi ghrita</i>	<i>Shrutadhari</i>	<i>A.S.Ut.49/36</i>	Int.
70.	<i>Mashadighrita-Liha</i>	-	<i>A.S.Ut.50/12</i>	Int.
71.	<i>Kushamandaghrita</i>	<i>Dhi, Vakaprada, Swaraprada</i>	<i>A.H.Ut.7/28</i>	Int.
72.	<i>Jatyadighrita</i>	<i>Vranaropana</i>	<i>A.H.Ut.25/67</i>	Ext.
<b>Churna Kalpana</b>				
73.	<i>Madhukachurna- Vimardana</i>	<i>Kikkisa</i>	<i>Ch.Sa.8/32</i>	Ext.
74.	<i>Jivantayadichurna–Utshadana</i>	<i>Pushti, Varna, Bala</i>	<i>Ch.Chi.8/176</i>	Ext.
75.	<i>Patoladichurna– Pralepana, Prakshalana</i>	<i>Visarpa</i>	<i>Ch.Chi.21/97</i>	Ext.
76.	<i>Rodharadichurna- avachurmana</i>	<i>Atipravrutta Rakta</i>	<i>Su.Su.14/36</i>	Ext.
77.	<i>Prapaundrikadichurna- Avachurmana</i>	<i>Unmantha (karnapaliroga)</i>	<i>Su.Chi.25/20</i>	Ext.
78.	<i>Slakshanachurna</i>	<i>Vishayuktavayu</i>	<i>A.S.Su.8/70</i>	Int.
79.	<i>Tagaradichurna</i>	<i>Asrukasthapana</i>	<i>A.S.Su.36/10</i>	Int.
80.	<i>Churna–Avakirana</i>	<i>Purvabandhana</i>	<i>A.S.Su.38/30</i>	Ext.
81.	<i>Lodhradhichurna-Himapana</i>	<i>Raktastambhaka</i>	<i>A.H.Su.27/48</i>	Int.
82.	<i>Yashtyadichurna-Pana</i>	<i>Rakta Arsha</i>	<i>A.H.Chi.8/113</i>	Int.
<b>Lepa Kalpana</b>				
83.	<i>Shatavhyadi-Pradeha (Ch)</i> <i>Lepa (Su)</i>	<i>Vatarakta</i> <i>Siroroga</i>	<i>Ch.Su.3/21</i> <i>Su.Ut.26/39</i>	Ext.
84.	<i>Bhadrashriya-Pralepa, Pradeha</i>	<i>Raktapitta</i>	<i>Ch.Chi.4/102</i>	Ext.
85.	<i>Shatpushpadi-Alepa.</i>	<i>Shirasula, Parshvasula</i>	<i>Ch.Chi.8/77</i>	Ext.
86.	<i>Baladi –Pradeha</i>	<i>Shirasula, Parshvasula</i> <i>Visarpa</i> <i>Sansrustadosha</i>	<i>Ch.Chi.8/78,79</i> <i>Ch.Chi.21/79</i> <i>A.S.Chi.7/42</i>	Ext.

87.	<i>Prapaundrikadi-Pralepa</i>	<i>Rajyakshama</i>	<i>Ch.Chi.8/83</i>	Ext.
88.	<i>Shirishadi-Lepa</i>	<i>Unmada</i>	<i>Ch.Chi.9/64</i>	Ext.
89.	<i>Udumbaradi-Pradeha</i>	<i>Visarpa</i>	<i>Ch.Chi.21/72</i>	Ext.
90.	<i>Naladadi-Pralepa</i>	<i>Visarpa</i>	<i>Ch.Chi.21/74,77</i>	Ext.
91.	<i>Yavachumadi-Pralepa, Alepa (Ch) Pralepa, Lepa (A.S.)</i>	<i>Visarpa</i>	<i>Ch.Chi.21/80,82</i>	Ext.
		<i>Vranadaha, Vranashula</i>	<i>Ch.Chi.25/78</i>	
		<i>Surudhakarna</i>	<i>A.S.Ut.1/38</i>	
		<i>Granthi</i>	<i>A.S.Ut.35/2</i>	
92.	<i>Shevaladi-Alepana</i>	<i>Visarpa</i>	<i>Ch.Chi.21/91</i>	Ext.
93.	<i>Sursadi-Lepa</i>	<i>Visha</i>	<i>Ch.Chi.23/52</i>	Ext.
94.	<i>Vijayadi-Pradeha</i>	<i>Shopha</i>	<i>Ch.Chi.25/47</i>	Ext.
95.	<i>Saktavadi-Pradeha</i>	<i>Shopha</i>	<i>Ch.Chi.25/48</i>	Ext.
96.	<i>Tilakalkadi-Pralepa</i>	<i>Vrana</i>	<i>Ch.Chi.25/85</i>	Ext.
97.	<i>Krushanadi-pralepana</i>	<i>Kesharanjana</i>	<i>Ch.Chi.26/279</i>	Ext.
98.	<i>Yashtimadhukadi-Lepa (Ch, A.S.) Yashtimadhukadi – Alepana (Su)</i>	<i>Vivarnakshira</i>	<i>Ch.Chi.30/271</i>	Ext.
		<i>Baddhagudodara, Paristraviudara</i>	<i>Su.Chi.14/17</i>	
		<i>Ruja</i>	<i>A.S.Ut.11/10</i>	
99.	<i>Amlavargadi-Lepa</i>	<i>Ksharadagha</i>	<i>Su.Su.11/21</i>	Ext.
100.	<i>Kanjikadi-Lepa</i>	<i>Ksharadagha, Vranaropana</i>	<i>Su.Su.11/23</i>	Ext.
101.	<i>Madhukadi-Alepa, Pradeha (Su) Lepa, Alepa (A.S)</i>	<i>Karna-vyadha</i>	<i>Su.Su.16/6</i>	Ext.
		<i>Jwaraupdrava</i>	<i>Su.Ut.39/297</i>	
		<i>Mukhalepaprayuktavisha</i>	<i>A.S.Su.8/52</i>	
		<i>Dahashulahara</i>	<i>A.S.Ut.30/16</i>	
102.	<i>Durvadi-Pralepa</i>	<i>Paitiksopha</i>	<i>Su.Su.36/4</i>	Ext.
103.	<i>Kapalikachumadi-Pralepa</i>	<i>Pandukarna</i>	<i>Su.Chi.1/96</i>	Ext.
104.	<i>Manjisthadi- Alepana</i>	<i>Bhagna</i>	<i>Su.Chi.3/7</i>	Ext.
105.	<i>Manshaparnayadi-Pralepa</i>	<i>Vatarakta</i>	<i>Su.Chi.5/12</i>	Ext.
106.	<i>Lodharadi- Lepa</i>	<i>Vrana</i>	<i>Su.Chi.7/35</i>	Ext.
107.	<i>Lajadi –Lepa</i>	<i>Pittajavidradhi</i>	<i>Su.Chi.16/10</i>	Ext.
108.	<i>Kshirivrukshadi-Lepa</i>	<i>Vrana</i>	<i>Su.Chi.16/13</i>	Ext.
109.	<i>Prapoundrikadi- Lepa</i>	<i>Pittajavidradhi</i>	<i>Su.Chi.17/8</i>	Ext.
110.	<i>Padmaadi- Lepa</i>	<i>Pittajaupdamsha</i>	<i>Su.Chi.19/32</i>	Ext.
111.	<i>Tiladi- Lepa</i>	<i>Rasayanpana niyama</i>	<i>Su.Chi.29/12</i>	Ext.
112.	<i>Chandanadi-Lepa</i>	<i>Mukhalepa</i>	<i>Su. Kalp.1/61</i>	Ext.
113.	<i>Priyangavadi- Lepa</i>	<i>Luta damshavisha</i>	<i>Su. Kalp.8/131</i>	Ext.
114.	<i>Payasayadi-Lepa</i>	<i>Vedana, Raga</i>	<i>Su.Ut.17/89</i>	Ext.
115.	<i>Sarivadi- Lepa</i>	<i>Kaphajasiroga, Ardhavabhedaka, Suryavarta</i>	<i>Su.Ut.26/35</i>	Ext.
116.	<i>Sarvagatra-Pradeha</i>	<i>Chatraprayuktavisha</i>	<i>A.S.Su.8/44</i>	Ext.
117.	<i>Dhatryadi- Lepa</i>	<i>Daha jwara</i>	<i>A.S.Chi.2/38</i>	Ext.
118.	<i>Lodhradi-Lepa</i>	<i>Vrana</i>	<i>A.S.Chi.13/22</i>	Ext.
119.	<i>Triphaladi -Parisheka, Lepa</i>	<i>Sirovaktraroga</i>	<i>A.S.Ut.11/22</i>	Ext.
120.	<i>Kshirapriyaladi-Pralepa</i>	<i>Khalita</i>	<i>A.S.Ut.28/24</i>	Ext.
121.	<i>Sodhana-Alepa</i>	<i>Vranasodhana</i>	<i>A.S.Ut.30/25</i>	Ext.
122.	<i>Kasisadi-Lepa</i>	<i>Savarnikarana</i>	<i>A.S.Ut.30/52</i>	Ext.
123.	<i>Nyagrodhadhi-Alepa</i>	<i>Putidansha</i>	<i>A.S.Ut.47/16</i>	Ext.
124.	<i>Kumudadi-Mukhalepa</i>	<i>Dridhadarshana, vadana</i>	<i>A.H.Su.22/20</i>	Ext.
125.	<i>Bhadradi-Alepa</i>	<i>Vatajavidhradhi</i>	<i>A.H.Chi.13/2</i>	Ext.
126.	<i>Dahanashaka-Lepa</i>	<i>Angadaha, Visphota, Charmadala</i>	<i>A.H.Chi.19/89</i>	Ext.
127.	<i>Kshirkakoladi-Mukhalepa</i>	<i>Aakshi Ruja raga</i>	<i>A.H.Ut.14/25</i>	Ext.
128.	<i>Masyadi-Lepa</i>	<i>Pittajaraktajaabhishtyanda</i>	<i>A.H.Ut.16/4</i>	Ext.
129.	<i>Priyaladi-Lepa</i>	<i>Darunaka</i>	<i>A.H.Ut.24/26</i>	Ext.
130.	<i>Asgandhadi-Lepa</i>	<i>Ropana</i>	<i>A.H.Ut.25/52</i>	Ext.
131.	<i>Kumkumadi-Lepa</i>	<i>Nilika, Palita, Vyanga, Vali, Tilaka, Dushika</i>	<i>A.H.Ut.32/29</i>	Ext.
<b>Taila Kalpana</b>				
132.	<i>Anutaila-Navana</i>	<i>Tridoshanasak, Manyastambha, Shirasula, Ardita, Hanusangraha, Pinasa, Ardhavabhedaka</i>	<i>Ch.Su.5/63</i>	Ext.
		<i>Vataja Pinas</i>	<i>Ch.Chi.26/140</i>	
		<i>Nasyartha</i>	<i>A.S.Su.29/10</i>	
		<i>Mahagunayukta</i>	<i>A.H.Su.20/37</i>	
133.	<i>Lodhradi taila- Abhyanga</i>	<i>Nabhipaka</i>	<i>Ch.Sa.8/44</i>	Ext.
134.	<i>Chandanadi taila- Abhyanga, Pradeha, Avagaha, Parisheka, Sheetpradeha, Sheka</i>	<i>Jwara</i>	<i>Ch.Chi.3/258</i>	Ext.
		<i>Dahyaman Kustha</i>	<i>Ch.Chi.7/133</i>	
		<i>Jwara</i>	<i>A.S.Chi.2/35</i>	
135.	<i>Madhuka taila-Abhyanga</i>	<i>Daha</i>	<i>Ch.Chi.5/131</i>	Ext.
		<i>Vatarakta</i>	<i>Ch.Chi.29/115</i>	Int.
136.	<i>Prapaundrikadyataila- Pratimarshanasya</i>	<i>Vrana</i>	<i>Ch.Chi.25/92</i>	Ext.
		<i>Khalitya</i>	<i>Ch.Chi.26/276</i>	
137.	<i>Mahanilataila- Nasya, Shiroabhyanga</i>	<i>Khalitya-Palitya</i>	<i>Ch.Chi.26/269</i>	Ext.
138.	<i>Sukumarakataila-Nasya, Abhyanga, Anjana, Pana</i>	<i>Vatavyadhi, Vatarakta</i>	<i>Ch.Chi.29/96</i>	Ext, Int.
139.	<i>Amrutadhya taila</i>	<i>Vatarakta, Kshat-kshina,</i>	<i>Ch.Chi.29/103</i>	Int.

		<i>Aakshepa</i>		
140.	<i>Vakshyamanataila</i>	<i>Karnapalivrana</i>	<i>Su.Su.16/41</i>	Ext.
141.	<i>Trayodashangataila-Parisheka, Ropana</i>	<i>Vranaropana</i>	<i>Su.Chi.2/38</i>	Ext.
142.	<i>Talisadi taila</i>	<i>Sadhyovrana</i>	<i>Su.Chi.2/75</i>	Int.
		<i>Sadhyovrana</i>	<i>A.H.Ut.26/55</i>	Ext.
143.	<i>Samangaditaila</i>	<i>Sadhyovrana</i>	<i>Su.Chi.2/82</i>	Int.
144.	<i>Madvikaditaila- Parisheka</i>	<i>Vrana</i>	<i>Su.Chi.8/18</i>	Ext.
145.	<i>Magadhiyaditaila</i>	<i>Gandamala, Mandala, Pramehajanyavrana</i>	<i>Su.Chi.8/43</i>	Ext.
146.	<i>Chakrataila-Murdhapradapana</i>	<i>Shiroroga</i>	<i>Su.Chi.24/27</i>	Ext.
147.	<i>Madhukaditaila-Basti</i>	<i>Daha, Asrugdara, Visarpa,</i>	<i>Su.Chi.38/25</i>	Ext.
148.	<i>Vidangaditaila-Anuvasana</i>	<i>Pliha, Udavarta, Vatarakta, Gulma, Aanaha, Prameha</i>	<i>Su.Chi.38/42</i>	Ext.
149.	<i>Bilvaditaila-Karnapurana</i>	<i>Badhirya</i>	<i>Su.Ut.21/36,37</i>	Ext.
150.	<i>Dhavaditaila -Nasya</i>	<i>Pratishyaya</i>	<i>Su.Ut.24/28</i>	Ext.
151.	<i>Balataila-Pana, Navana, Abhyanga, Basti (A.S.)</i>	<i>Dirgharoga, Marmavidha, Patita</i>	<i>A.S.Sa.4/42</i>	Ext.,
	<i>Pana, Nasya (A.H.)</i>	<i>Vatavyadhi</i>	<i>A.S.Chi.30/42</i>	Int.
		<i>Kasa, Jwara, Chardi, Murcha, Gulma, Urahakshata, Pliha, Sosha, Apsamara</i>	<i>A.H.Chi.21/76</i>	
152.	<i>Bruhatyaditaila</i>	<i>Shulajaatisara</i>	<i>A.S.Chi.11/16</i>	Int.
153.	<i>Prasarinitaila-Nasya</i>	<i>Kushtha, Prameha</i>	<i>A.S.Chi.30/39</i>	Ext.
154.	<i>Madhuyashyaditaila-Pana, Nasya, Anuvasana, Abhyanga</i>	<i>Vatarakta, Pittadaha</i>	<i>A.S.Chi.30/15</i>	Int.,
		<i>Vatarakta, Pittadaha, Jwara, Arti</i>	<i>A.H.Chi.22/41</i>	Ext.
155.	<i>Shirishataila</i>	<i>Apasamara, Graha</i>	<i>A.S.Ut.10/12</i>	Ext.
156.	<i>Jivakaditaila</i>	<i>Karnaroga</i>	<i>A.S.Ut.22/4</i>	Ext.
157.	<i>Lodhradi taila-Navana</i>	<i>Urdhavajatruroga</i>	<i>A.S.Ut.26/31</i>	Ext.
158.	<i>Murvaditaila-Nasya</i>	<i>Pitika, Arbuda, Vidradhi</i>	<i>A.S.Ut.28/12</i>	Ext.
159.	<i>Bhallatakatailapaka</i>	-	<i>A.S.Ut.49/57</i>	Ext.
160.	<i>Satapakataila-Pana</i>	<i>Hridaroga</i>	<i>A.H.Chi.6/38</i>	Int.
161.	<i>Pindataila-Abhyanga</i>	<i>Vataraktarujapaha</i>	<i>A.H.Chi.22/22</i>	Ext.
162.	<i>Jivantiitaila-Nasya</i>	<i>Lavanya, Kantida, Keshashyakandharapushti, Skandhapushti</i>	<i>A.H.Ut.13/52</i>	Ext.
163.	<i>Mulethiyaditaila-Nasya, Purana, Abhyanga</i>	<i>Karnashula, Daha</i>	<i>A.H.Ut.18/8</i>	Ext.
164.	<i>Gandhataila-Pana, Nasya, Abhyanga, Sechana</i>	<i>Asthithariyakruta</i>	<i>A.H.Ut.27/38</i>	Int.,
165.	<i>Dhatkyaditaila-Abhyanga, Pichu, Uttarbasti</i>	<i>Yoni roga</i>	<i>A.H.Ut.34/51</i>	Ext.
<b>Basti Kalpana</b>				
166.	<i>Viranadi-Niruha</i>	<i>Udavarta</i>	<i>Ch.Sa.8/29</i>	Ext.
167.	<i>Madamadibasti</i>	<i>Jwara</i>	<i>Ch.Chi.3/243</i>	Ext.
168.	<i>Pipalyadibasti-(Niruha)</i>	<i>Jwara, Bala</i>	<i>Ch.Chi.3/248</i>	Ext.
	<i>Pipalyadibasti-(Anuvasana )</i>	<i>Arsha, Mudhavata</i>	<i>Ch.Chi.14/131</i>	
169.	<i>Jivanyadibasti -(Sneha)</i>	<i>Jwara</i>	<i>Ch.Chi.3/250</i>	Ext.
	<i>Jivanyadibasti-(Anuvasana)</i>	<i>Brimhana</i>	<i>Ch.Si.4/9</i>	
170.	<i>Picchabasti</i>	<i>Pravahika, Gudabhransha, Raktasrava, Jwara</i>	<i>Ch.Chi.14/229</i>	Ext.
		<i>Atisara</i>	<i>Su.Ut.40/142</i>	
		<i>Pittaraktatisara, Grahani</i>	<i>A.S.Chi.11/18</i>	
171.	<i>Asthanabasti</i>	<i>Pittatisara, Jwara, Shotha, Gulma, Jimatisara, Grahani</i>	<i>Ch.Chi.19/66</i>	Ext.
172.	<i>Shatahyadibasti</i>	<i>Dipana, Lekhana</i>	<i>Ch.Si.3/40</i>	Ext.
	<i>Shatahyadibasti (Doshahara)</i>	<i>Doshavastha</i>	<i>Su.Chi.38/94</i>	
	<i>Shatahayadibasti (Anuvasana)</i>	<i>Vatajatimira</i>	<i>A.S.Ut.16/17</i>	
173.	<i>Lodhradiniruhabasti</i>	<i>Daha, Atisara, Pradara</i>	<i>Ch.Si.3/50</i>	Ext.
174.	<i>Erandatailabasti</i>	<i>Arsha, Aadhyavata, Udavarta, Gulma, Pliha, Meha</i>	<i>Ch.Si.4/13</i>	
	<i>Erandabijadibasti-(Utakleshana )</i>	-	<i>Su.Chi.38/93</i>	Ext.
	<i>Erandamuladibasti</i>	<i>Kaphavatamaya</i>	<i>A.S.Vi.4/4</i>	
175.	<i>Yashtimadhukadibasti (Sneha)</i>	<i>Aamayuktadosha</i>	<i>Ch.Si.6/67</i>	
	<i>Yashtimadhukatailabasti (Anuvasana)</i>	<i>Vatajavruddhi</i>	<i>Su.Chi.19/7</i>	
	<i>Yashtimadhukatailabasti (Anuvasana)</i>	<i>Vatashulavyapada</i>	<i>Su.Chi.34/9</i>	Ext.
	<i>Yashtimadhukadi Picchabasti</i>	<i>Parikartikavyapada</i>	<i>Su.Chi.34/16</i>	
	<i>Yashtiyadibasti (Niruha )</i>	<i>Vatarakta</i>	<i>A.S.Vi.4/6</i>	
	<i>Yashtiyadibasti(Kalpa)</i>	<i>Pittaamaya</i>	<i>A.H. Kalp.4/11</i>	
176.	<i>Bilvatailadi Anuvasanabasti</i>	-	<i>Ch.Si.7/53</i>	Ext.
177.	<i>Shatavaryadiuttarabasti</i>	<i>Bastishula, Mutravikara</i>	<i>Ch.Si.9/8</i>	Ext.
178.	<i>Madhukadibasti</i>	<i>Raktapitta</i>	<i>Ch.Si.10/42</i>	Ext.
	<i>Madhukadibasti (Anuvasana)</i>	<i>Saptamamsegarbhopdrava</i>	<i>A.S.Sa.3/10</i>	Ext.

179.	<i>Kalingadibasti</i>	<i>Sarvapashu</i> (All animals)	<i>Ch.Si.11/23</i>	Ext.
180.	<i>Yapanabasti</i>	<i>Kshina indriya, Jwara</i>	<i>Ch.Si.12/16,18</i>	Ext.
181.	<i>Priyangavadi Samanabasti</i>	<i>Samanartha</i>	<i>Su.Chi.38/95</i>	Ext.
182.	<i>Yuktathabasti</i>	-	<i>Su.Chi.38/102</i>	Ext.
183.	<i>Vachaditailabasti</i>	<i>Hridaroga</i>	<i>Su.Ut.43/17</i>	Ext.
184.	<i>Vasukadi Anuvasanabasti</i>	<i>Vatikasukradosha</i>	<i>A.S.Sa.1/25,26</i>	Ext.
185.	<i>Kashmaryadi Niruhabasti</i>	<i>Udavarta</i>	<i>A.S.Sa.4/25</i>	Ext.
186.	<i>Patoladi Niruha</i>	<i>Jwara</i>	<i>A.S.Chi.2/24</i>	Ext.
187.	<i>Parninayadi Niruha</i>	<i>Jwara</i>	<i>A.S.Chi.2/25</i>	Ext.
188.	<i>Trayamanadiniruha</i>	<i>Jwara</i>	<i>A.S.Chi.2/26</i>	Ext.
189.	<i>Aamradikoniruha</i>	<i>Daha, Jwara</i>	<i>A.S.Chi.2/27</i>	Ext.
190.	<i>Jivantadhyabasti Anuvasana</i>	<i>Daha, Jwara</i>	<i>A.S.Chi.2/28</i>	Ext.
		<i>Brimhana, Vatapittaghna</i>	<i>A.S.Vi.5/18</i>	Ext.
191.	<i>Shatavaryadi Uttarabasti</i>	<i>Mutraghata</i>	<i>A.S.Chi.13/16</i>	Ext.
192.	<i>Krushnatiladi Picchabasti</i>	<i>Parikartika</i>	<i>A.S.Vi.3/9</i>	Ext.
193.	<i>Koshatakyadi Niruhabasti</i>	-	<i>A.S.Vi.4/8</i>	Ext.
194.	<i>Palashadibasti</i>	<i>Sukumara</i>	<i>A.S.Vi.4/10</i>	Ext.
195.	<i>Sahacharadirasayanabasti</i>	<i>Putrada</i>	<i>A.S.Vi.5/15</i>	Ext.
196.	<i>Picchilabasti</i>	<i>Bastivyapada</i>	<i>A.S.Vi.5/20</i>	Ext.
197.	<i>Nikumbhadibasti</i>	<i>Sadaatura</i>	<i>A.S.Vi.7/31</i>	Ext.
198.	<i>Chatuparnayadibasti</i>	<i>Jwara</i>	<i>A.H.Chi.1/121</i>	Ext.
<b>Kshara Kalpana</b>				
199.	<i>Kshara</i>	<i>Sarvavisha</i>	<i>Ch.Chi.15/189</i>	Ext.
200.	<i>Kshara-Agad</i>	<i>Sarvavisha, Shotha, Gulma, Twakadosha, Arsha, Pandu Bhagandara, Pliaghna, Apasamara, Krimi, Swarbheda</i>	<i>Ch.Chi.23/101</i>	Int.
<b>Avaleha Kalpana</b>				
201.	<i>Lehya</i>	<i>Raktapitta</i>	<i>Ch.Chi.4/68</i>	Int.
202.	<i>Lehya</i>	<i>Kshat-kshina</i>	<i>Ch.Chi.11/20</i>	Int.
203.	<i>Leha</i>	<i>Bala</i>	<i>Ch.Chi.16/137</i>	Int.
204.	<i>Pipalyadi-Leha</i>	<i>Kasa, Shwasa</i>	<i>A.S.Chi.4/16</i>	Int.
		<i>Parvasthanishula</i>	<i>A.S.Chi.5/11</i>	
205.	<i>Madhookadi-Leha</i>	<i>Kasa</i>	<i>A.S.Chi.5/7</i>	Int.
206.	<i>Bharangayadi-Leha</i>	<i>Visha</i>	<i>A.S.Ut.48/11</i>	Int.
207.	<i>Shathiyadi-Leha</i>	<i>Abhishyanda, Kasa</i>	<i>A.H.Chi.4/38</i>	Int.
208.	<i>Madhukadi-Leha</i>	<i>Kshata kshina, Raktagulma</i>	<i>A.H.Chi.3/106</i>	Int.
<b>Asava-Arishta Kalpana</b>				
209.	<i>Mulaasava</i>	<i>Grahani, Anaha, Hridaroga, Panduroga</i>	<i>Ch.Chi.15/158</i>	Int.
210.	<i>Bijakarishtha</i>	<i>Grahani, Panduroga, Arsha, Shotha, Gulma, Mutrakruccha, Ashmari, Meha, Sannipataja kamala</i>	<i>Ch.Chi.16/109</i>	Int.
<b>Varti Kalpana</b>				
211.	<i>Harenukadivarti</i>	<i>Prayogikadhupan</i>	<i>Ch.Su.5/21</i>	Ext.
212.	<i>Medadi Dhumavarti</i>	<i>Kasa</i>	<i>Ch.Chi.18/145</i>	Ext.
			<i>A.H.Chi.3/148</i>	
213.	<i>Sneha varti</i>	<i>Pandu, Asrugdara</i>	<i>Ch.Chi.30/119</i>	Ext.
214.	<i>Manahshiladivarti-Anjana</i>	<i>Drastigataroga</i>	<i>Su.Ut.17/17</i>	Ext.
215.	<i>Kansayadivarti -Anjana</i>	<i>Netra ruja</i>	<i>Su.Ut.18/103</i>	Ext. <sup>10-13</sup>

(Ch.-Charaka, Su.-Sushruta, A.S.-Ashtanga Sangraha, A.H.-Ashtanga Hridaya, Su.-Sutra sthana, Sa.- Sharira sthana, Vi.- Vimana sthana, Chi.-Chikitsa, Si.- Siddhi sthana, Kalp.- Kalpa sthana, Ut.- Uttara tantra, Ext.-External, Int.-Internal, A.- Administration)

**Table 2: Various Yashtimadhu kalpana depicted in Brihatrayi**

S.N	Dosage forms	Ch.	Su.	A.S.	A.H.	Other	Total
1.	<i>Kashaya</i>	3	4	3	2	2	14
2.	<i>Gutika</i>	4	1	2	1	1	9
3.	<i>Ghruta</i>	9	11	16	2	11	49
4.	<i>Churna</i>	3	2	3	2	0	10
5.	<i>Lepa</i>	12	16	8	8	5	49
6.	<i>Taila</i>	6	10	7	6	5	34
7.	<i>Basti</i>	10	3	14	1	5	33
8.	<i>Kshara</i>	2	0	0	0	0	2
9.	<i>Avaleha</i>	3	0	3	2	0	8
10.	<i>Asava-arista</i>	2	0	0	0	0	2
11.	<i>Varti</i>	2	2	0	0	1	5
<b>Total</b>		<b>56</b>	<b>49</b>	<b>56</b>	<b>24</b>	<b>30</b>	<b>215</b>

## DISCUSSION

In Ayurvedic classics prime importance has been given for the preparation of medicine. There are five types of *Kashaya Kalpanas* (Pharmaceutics) as basic procedure delineated in Ayurvedic Science. The criteria for selecting particular *kalpana* for specific diseased condition are based on *Vyadhi-Atura Bala*<sup>14</sup>. And it's also depends on drugs which is used in it. *Yashtimadhu* a widely used classical medicinal plant and is found in numerous traditional formulas which represent its prime importance. Taking all this point into consideration *brihatrayi* has been referred for various *Kalpanas* and all the collected information systematically presented in Table 1. It is observed that total 11 different dosage forms of *Yashtimadhu* are described in Samhita. Different formulations of *Yashtimadhu Kalpana* observed in various Samhita are described in Table 2. Among these dosage forms *Ghrita* and *Lepa Kalpana* are found maximum in numbers i.e. 49, followed by *Taila Kalpana* (34), *Basti Kalpana* (33), *Kashaya Kalpana* (14) etc. Digestion, absorption, and delivery to target organ system are crucial in obtaining the maximum benefit from any formulation. Glycyrrhizin one of the Chemical constitute of *Glycyrrhiza glabra* Linn. has lower membrane permeability and is thus poorly absorbed. Lipophilic nature of Ghee facilitates entry of formulation into the cell and its delivery to mitochondrium, microsomes and nuclear membrane. In the process of evaluating the activities of natural compounds, it has been found by means of sophisticated research that when herbs are mixed with ghee; their activity and utility is potentiated, many times. *Lepa* is another *kalpana* of *Yashtimadhu*, used almost in *Brihatrayi*. In *Lepa kalpana* medicated powder is mixed with liquid or other media and made into fine paste. The different media used in it have supportive role in increasing efficacy by better skin penetration and better bioavailability. According to Ayurveda principle when medicine administered internally, it passes through *Jatharagni paka* followed by *Dhatwagni paka* (*Rasa, Rakta* etc.). As the *Twak* is *Sara* of *Rakta dhatu*, when the symptoms like *kandu, Daha, Shotha* etc occurred *Lepa Kalpana* provide satisfactory result. Media and route of drug administration both have important role in process of drug absorption.

## CONCLUSION

*Yashtimadhu* is one of the prime drugs in the classical text of Ayurveda. It possesses various pharmacological actions like *Rasayana, Varnya, Kanthya, kandughna, Keshya*, etc. It is very potent and efficacious drug in treating various ailments like, *Vatarakta, Siroroga, Raktapitta, Kasa, Shwasa, Mukhapaka* etc. It is observed that *Yashtimadhu* is widely used in *Ghrita, Lepa* and *Basti Kalpana* in *Brihatrayi*. The review represents the information regarding various *Kalpana* and their indication in sequential and scientific description, which provides easy and handy information for Ayurvedic physicians. Further clinical research can be carried out to revalidate effectiveness of all these *Kalpana* and different dosage forms.

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