

A REVIEW OF AMLAVETAS (*HIPPOPHAE SALICIFOLIA* D. DON) WITH SPECIAL  
REFERENCE TO ITS CONTROVERSIAL IDENTITYDr. Priyal Patel\*<sup>1</sup>, Prof. Rashmi Srivastava<sup>2</sup>, Dr. Udit Verma<sup>3</sup><sup>1,3</sup>MD Scholar, Dravyaguna Department, R.G.G.PG. Ayurvedic College, Paprola, H.P.<sup>2</sup>Professor, Dravyaguna Department, R.G.G.PG. Ayurvedic College, Paprola, H.P.

\*Corresponding Author: Dr. Priyal Patel

MD Scholar, Dravyaguna Department, R.G.G.PG. Ayurvedic College, Paprola, H.P.

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**ABSTRACT**

People have been using traditional medicine since ancient times and *Ayurveda* is a part of the conventional medical system. Medicinal plants are used in *Dravyabhuta chikitsa*, which plays an important role in treating diseased ones. However, due to certain reasons, controversies regarding the identification of medicinal plants started. These controversies in identification directly affect treatment outcomes. *Amlavetas* is one of the most controversial plants whose botanical source is considered to be different in different regions. The medicinal properties of *Amlavetas* are described in *Samhitas* and *Nighantus*. The morphological property of *Amlavetas* is also described in *Nighantu*, which helps to conclude the botanical source. *Amlavetas* contain important phytochemicals that impart good pharmacological qualities and resolve diseased conditions. The conclusion over the controversial identity of *Amlavetas* will be helpful in future research and also for treatment purposes.

**KEYWORDS:** *Amlavetas*, *Hippophae salicifolia* D. Don, Controversial plant, *Ayurveda*.**INTRODUCTION**

India has remarkable geographical diversity ranging from mountainous terrains to coastal regions and deserts. Due to this, India is divided into different agroclimatic zones. An "Agro-climatic zone" is a land unit in terms of major climates, suitable for a certain range of crops and cultivars. The country is divided into 15 Regions delineated based on agroclimatic factors such as soil type, rainfall, temperature, and water resources.<sup>[1]</sup> Due to such diversified climatic conditions, different kinds of medicinal plants are also found in India.

*Amlavetas* is a significant medicinal plant that is found in temperate dry zones. It is described from *Samhita kala* (*Samhita* period) to *Nighantu kala* (*Nighantu* period) and its medicinal properties are very beneficial to humankind for the management of different diseases. The need for conclusion over the botanical source of *Amlavetas* is important because the botanical source of the plant is very controversial. Disparate botanical sources are used for *Amlavetas* in different regions of India. This will directly affect the pharmaceutical industry and treatment outcomes. Its morphological properties are also described in *Nighantus*, from which the botanical source of *Amlavetas* can be identified. In recent research, a Botanical source has been used as *Garcinia pedunculata*. To resolve this query, in this article an attempt has been made to review *Amlavetas* from different classical texts,

to conclude its controversial botanical identity, and to review its pharmacological action from classical books as well as other modern books.

**MATERIAL AND METHOD**

A systematical review of *Amlavetas* is done through *Charak Samhita*, *Sushrut Samhita*, *Ashtanga Hridaya*, *Nighantus*, and searches for scientific research papers published on *Hippophae salicifolia* D. Don has been done.

**RESULTS**

Information regarding the *Amlavetas* is available in the classical texts of *Ayurveda* named *Samhita*, *Nighantu*, and recent texts like *Bhaishajya Ratnavali*, etc. It has been found in *Bhoomi Vana Aushadhiadi* varga of *Agnipurana* (*Agni Purana* 363/63). Classical references of *Amlavetas* are as follows in table no1.

**Table 1: References of Amlavetas regarding its action from different text books of Ayurveda.**

Subject	Action	References of Amlavetas in classical Ayurvedic textbook
1)Yavagu	Bhedinee	Charak Samhita Sutra 2/29
2)Mahakashaya	Deepaniya	Charak Samhita Sutra 4/6
3)Mahakashaya	Hridya	Charak Samhita Sutra 4/10
4)Mahakashaya	Shwashara	Charak Samhita Sutra 4/37
5)Agrey Prakrana	Bedaniya, Deepaniya, Anulomik Vata-Shleshma Hara	Charak Samhita Sutra 25/40
6)Phala Varga	Bhedaniya	Charak Samhita Sutra 27/152
7)Amla Skandha	Chhedana, Bhedana	Charak Samhita Viman 8/140
8)Hingawadi churna evam gutika	Gulma Chikitsa	Charak Samhita Chikitsa 5/79
9)Shatyadi Churna	Gulma Chikitsa	Charak Samhita Chikitsa 5/86
10)Churan, Vati	Kaphaja Gulma Chikitsa	Charak Samhita Chikitsa 5/162
11)Hitakar ahar	Gulma Chikitsa	Charak Samhita Chikitsa 5/166
12)Yavanishdav Churna	Rajyakshama Chikitsa	Charak Samhita Chikita 8/141
13)Lashunadi Ghrita	Unmad Chikitsa	Charak Samhita Chikita 9/55
14)Marichyadi Churna	Grahani Chikitsa (Vataj)	Charak Samhita Chikita 15/108
15)Churna	Hikka, shwas	Charak Samhita Chikita 17/87
16)Annapana	Hikka, shwas	Charak Samhita Chikita 17/ 104
17)Kantakari Ghrita	Kasa Chikitsa	Charak Samhita Chikita 18/ 127
18)Jivantyadi Leha	Kasa Chikitsa	Charak Samhita Chikita 18/ 178
19)Mahagandhhastinamagad	Visha Chikitsa	Charak Samhita Chikita 23/ 80
20)Annapana	Kaphaja Madatyaya Chikitsa	Charak Samhita Chikita 24/ 172
21)Ashtanga lavana	Madatyaya Chikitsa	Charak Samhita Chikita 24/ 177
22)Pashanabhedadi Churna	Trimarmiya Chikitsa	Charak Samhita Chikita 26/61
23)Virechana Yoga	Virechanartha	Charak Samhita Kalpa 7/63
24)Churna	Apatantrak, Apatanak Chikitsa	Charak Samhita Siddhi 9/19
25)Amla Varga	Jaran Pachan Deepan	Sushrut Samhita Sutra 42/19
26)Churna	Apatantraka Chikitsa	Sushrut Samhita Chikitsa 5/21
27)Hingwadi Churna	Kasa, Gulam, Udar, Arochak, Hridyrog, Adhman, Parshvashoola	Sushrut Samhita Chikitsa 5/28
28)Manth	Mahakustha Chikitsa	Sushrut Samhita Chikita 10/4
29)Lepa	Jwarpratishedha Chikitsa	Sushrut Samhita Uttar 39/296
30)Hingwadhy Ghrita	Shoola, Anah, Vatagulam	Sushrut Samhita Uttar 42/ 27
31)Dadhika Ghrita	Gulam, Plihavidhhi, Shoola	Sushrut Samhita Uttar 42/29
32)Rasonadi Ghrita	Gulam, Grahani, Arsh, Shwas, Unmad, Kshay, Jwar	Sushrut Samhita Uttar 42/32
33)Churan	Vatika Shoola, Gulam	Sushrut Samhita Uttar 42/70
34)Vidangadi churna	Vatika Shoola, Gulam	Sushrut Samhita Uttar 42/94
35)Amla Skandha	Agnideepan, Hridya, Pachan, Rochan, Vatanulomana	Ashtangahridaya Sutra 10/25
36)Kantakaree Ghrita	Kapha Vyadhi	Ashtangahridaya Chikitsa 3/61
37)Annapana	Shwas, Hidhma	Ashtangahridaya Chikitsa 4/6
38)Annapana	Shwas, Hidhma	Ashtangahridaya Chikitsa 4/27
39)Shadav Churna	Rajyakshma Chikitsa	Ashtangahridaya Chikitsa 5/55
40)Dadimadi Churna	Chhardi, Hridroga, Trishna	Ashtangahridaya Chikitsa 6/30
41)Annapana	Madatyayadi Chikitsa	Ashtangahridaya Chikitsa 7/ 37
42)Ashtanga Lavana	Madatyayadi Chikitsa	Ashtangahridaya Chikitsa 7/40
43)Dravya	Arsha Chikitsa	Ashtangahridaya Chikitsa 8/ 34
44)Pootikaranja Chukra	Arsha Chikitsa	Ashtangahridaya Chikitsa 8/146
45)Hingwadi Ghrita	Gulma Chikitsa	Ashtangahridaya Chikitsa 14/9
46)Dadhika Ghrita	Gulma Chikitsa	Ashtangahridaya Chikitsa 14/17
47)Lashunadi Ghrita	Gulma Chikitsa	Ashtangahridaya Chikitsa 14/25
48)Hingawadi Choorna	Gulma Chikitsa	Ashtangahridaya Chikitsa 14/32
49)Anupana	Kaphaja Gulma Chikitsa	Ashtangahridaya Chikitsa 14/76

50)Annapana	Kaphaja Gulma Chikitsa	Ashtangahridaya Chikitsa 14/111
51)Yavanakadi Ghrita	Shavyathu Chikitsa	Ashtangahridaya Chikitsa 17/11
52)Churna	Vatavyadhi Chikitsa	Ashtangahridaya Chikitsa 21/36
53)Anupana	Pravahikadi Chikitsa	Ashtangahridaya Kalpa 3/15
54)Vyoshadi Vati	Nasa Roga	Ashtangahridaya Uttar 20/5
55)Gutika	Mukha Roga	Ashtangahridaya Uttar 22/81
56)Vanaushadhi Varga	---	Amarkosh Dwitiyakanda-1/140
57)Viprakirna prakran	---	Ashtanga Nighantu-27/222
58)Chaturamla	---	Paryayratnamala-1696
59)Phal-Varga	Agnideepak	Dravyaguna sangrah-5/11
60)Shatpushpadi-Varga	Kapha-Vata Shamak Pipasa, Krmi, Arsh, Hridroga, Ashmari, Gulma	Dhanvantari Nighantu-2/103,104
61)Vriksh-kaanda	---	Nighantusesesh (Vallabhaganikrit-Teeka)-1/58,59
62)Vrikshadi-Varga	---	Shabdachandrika 1/257
63)Triphla-Varga	---	Shabdachandrika 9/11
64)Shatapushpadi varga	Gulam, Hridyaroga, Shoola, Deepan-Pachana	Sodhala Nighantu 2/345
65)Amla Skandha	---	Abhidhanratnamala 1/1
66)Phala varga	Vataghna,Laghu,Deepan,Shoola, Gulma	Madhavdravyaguna 21/25, 26
67)Kaphavataghna Dravya	Kapha-Vataghna	Siddhamantra-prakash (Vopadevkrit Vyakhya)-5/80
68)Phaladi-varga	Bhedak, Agnideepak, Hridaroga, Shoola, Gulma	Madanpal Nighantu-6/82
69)Phaladi-varga	---	Madanpal Nighantu-6/95
70)Pipaliadi-varga	Vata-Kapha Roga, Arsha, Gulma, Arochak	Raj Nighantu-6/125,128
71)Anekartha varga	---	Raj Nighantu-23/13 (Anekarthanam)
72)Tripad-varga	---	Hridayadipak Nighantu 2/ 29
73)Aushadhi-varga	Vata-Kapha, Agnideepak, Shoola, Anaha, Vishtambha, Gulma	Kaiyadev Nighantu 1/319,322,325
75) Amradiphala Varga	Bhedaniya, Deepaniya, Hridroha, Gulma, Shoola	Bhavprakash Nighantu-118
76)Amradiphala Varga Chaturamla, Panchamla	---	Bhavprakash Nighantu-123
77)Anekarthanam Varga Dwartahnam	---	Bhavprakash Nighantu-91
78)Anekarthanam Varga/Trayarthaknam	---	Bhavprakash Nighantu-35
79)Anekarthanam Varga	---	Bhavprakash Nighantu-49 (Trayarthaknam)
80)Radwi-Dwaksharam rantah	---	Shivkosha-377
81)Ladwi Dwaksharam lantah	---	Shivkosha-437
82)Latri-trayaksharam lantah	---	Shivkosha-474
83)Madhyahinaka parichhed	Anaah, Kaph, Vata roga	Rajvallabh Nighantu-3/164
84)Toyadivarga	---	Abhidhan Manjari-5/1004
85)Sankirna Varga	---	Abhidhan Manjari 5/15
86)Harityadi-varg	Deepan, Ajeerna, Shoola, Pliha Vridhhi, Gulma	Priya Nighantu page-52/242
87) Pratiidhi Dravya	-	Bhaishajya Ratnavali 4/27

Amlavetas is classified into different Vargas in Samhita Kala and Nighantu Kala. Amlavetas in different Samhita and Nighantu are mentioned in Table No. 2

**Table 2: Amlavetas in different group of Drugs Ayurvedic Classical Texts.**

Ayurvedic Classical Textbook	Varga (Group of Drugs)
<i>Charak Samhita</i>	<i>Hridya Mahakashaya</i> , <sup>[2]</sup> <i>Deepaniya Mahakashaya</i> , <sup>[3]</sup> <i>Shwashhara Mahakashaya</i> , <sup>[4]</sup> <i>Phalavarga</i> <sup>[5]</sup>
<i>Sushruta Samhita</i>	<i>Amla varga</i> <sup>[6]</sup>
<i>Dhanvantari Nighantu</i>	<i>Shatapushpadi varga</i> <sup>[7]</sup>
<i>Dravyaguna sangraha</i>	<i>Phala varga</i> <sup>[8]</sup>
<i>Sodhal Nighantu</i>	<i>Shatapushpadi varga</i> <sup>[9]</sup>
<i>Madanpal Nighantu</i>	<i>Phaladi varga</i> <sup>[10]</sup>
<i>Raja Nighantu</i>	<i>Pipalyadi varga</i> <sup>[11]</sup> , <i>Anekarthadi varga</i> <sup>[12]</sup>
<i>Kaiyadev Nighantu</i>	<i>Aushadhi varga</i> <sup>[13]</sup>
<i>Bhavprakash Nighantu</i>	<i>Amradiphala varga</i> <sup>[14]</sup>

Based on synonyms it is assumed that *Amlavetas* has sour fruit, hot in nature, and melts sharp objects which are mentioned in table on 3. *Paryay* and *Guna-Karma* of

*Amlavetas* according to different Ayurvedic textbooks as shown in tables no 3,4 and 5. <sup>[7][8][9][10][12][13][14]</sup>

**Table 3: Synonyms of Amlavetas in Nighantus.**

Nighantus	Synonyms
<i>Dhanvantari Nighantu</i>	<i>Amla, Bheema, Rasamla, Varavetas, Raktastravi, Vetasamla, Shatavedhi, Bhedak</i>
<i>Sodhal Nighantu</i>	<i>Asthidravi, Mansadravi, Varamla, Shatavedhi, Rasamla, Bhedak, Keshadravee, Sahasravedhi</i>
<i>Madanpal Nighantu</i>	<i>Amla, Amlavetas, Chukra, Vetas, Sharabhedak</i>
<i>Raja Nighantu</i>	<i>Amla, Amlavetas, Vedhee, Rasamla, Shatavedhi, Bhedan, Bheema, Rajamla, Raktasara, Sahasravedhi, Gulmaketu</i>
<i>Kaidev Nighantu</i>	<i>Vetasamla, Alabusuhyat, Shatavedhi, Amla, Bheema, Shakhmala, Varvetas, Mansari, Chukrak, Angivetas, Vedhak, Dravee, Rasamla, Vitkpriya</i>
<i>Bhavprakash Nighantu</i>	<i>Amlavetas, Chukra, Shatavedhi, Sahasranut</i>

**Table 4: Interpretation of Synonyms.**

Synonyms	Meaning of Synonym
<i>Amlavetas</i>	: <i>Amla</i> fruit and <i>Vetas</i> ( <i>Salix caprea</i> L.)-like a leaf
<i>Mansari</i>	: Due to the quick melting of meat, it has been called 'Mansari'
<i>Alabusuhrit</i>	: Its juice is like the juice of lemon and it is so sharp that if stone, wood, or iron is put in it, it melts, but does not melt the gourd alone. Therefore, it is kept in a container made from the outer shell of a bottle gourd
<i>Tejasvin</i>	: Extremely hot in nature
<i>Shatvedhi</i>	: Indicates its spine or melts sharp objects

**Table 5: Guna-Karma of Amlavetas in different Nighantus.**

Nighantus	Guna (Properties)				Karma (Action)
	Rasa	Guna	Virya	Vipak	
<i>Dhanvantari Nighantu</i>	<i>Kashaya Katu</i>	<i>Ruksha</i>	<i>Ushna</i>	-	<i>Trishnajit, Kapha-Vatajit, Krimijit, Arshajit, Hridrogajit, Ashmarijit, Gulmajit</i>
<i>Dravyagunasangraha</i>	<i>Atiamla</i>	<i>Tikshna</i>	<i>Snigdha</i>	-	<i>Agnidipaka</i>
<i>Madanpala Nighantu</i>	-	<i>Atiushna</i>	-	-	<i>Bhedaka, Agnidipaka, Gulmanashaka, Shoolanashaka, Kapha-Pitta Pradushana</i>
<i>Raja Nighantu</i>	<i>Atiamla Kashaya</i>	-	<i>Ushna</i>	-	<i>Kaphahara, Arshahara, Gulmaghna, Arochakahara</i>
<i>Kaidev Nighantu</i>	<i>Amla</i>	<i>Tikshna Snigdha</i>	<i>Ushna</i>	-	<i>Agnidipak, Shoolanashaka, Anahanashaka, Pachana Hikkanashaka, Dipan</i>
<i>Bhavprakash Nighantu</i>	<i>Amla</i>	<i>Laghu Rooksha</i>	-	-	<i>Bhedan, Hridrogaghna, Shoola-Gulmaghna, Pleeha-Udavartanashana, Anaha-Aruchi-Shwas-Kasa-Ajirna-Vamipranut</i>

Substitute of *Amlavetas*: *Chukra*<sup>[15]</sup>

Matra of *Amlavetas*: 1-3 *Masha*<sup>[16]</sup>

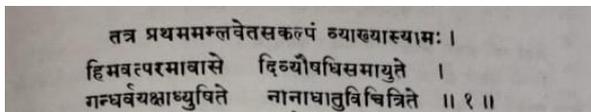
The useful part of *Amlavetas*: Fruit, Seed<sup>[17]</sup>

#### Vernacular name<sup>[18]</sup>

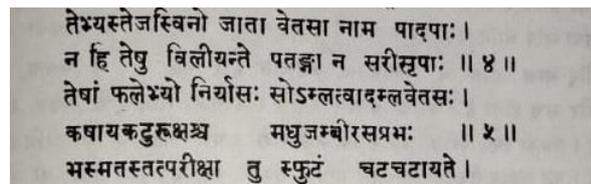
Sanskrit	<i>Amlavetas, Shatvedhi</i>
Hindi	<i>Amalvet</i>
Garhwal	<i>Ames, Chuk</i>
Punjab	<i>Chuma, Dhurchuk, Kalabis, Surch</i>
Bangali	<i>Thaikal</i>
Asami	<i>Bor-thequera</i>
Nepal	<i>Ashuk</i>

Different botanical sources are used in place of *Amlavetas* in different parts of India. In the East and North-East regions, *Garcinia pedunculata* Roxb. is taken as *Amlavetas*. In South region, *Solena heterophylla* Lour., *Cissus repens* Lamk., *Cissus vitiginea* Linn., *Ampelocissus latifolia* (Roxb.) Pllanch., *Cayratia trifolia* (Linn.) Domin. are taken as *Amlavetas*.<sup>[19]</sup>

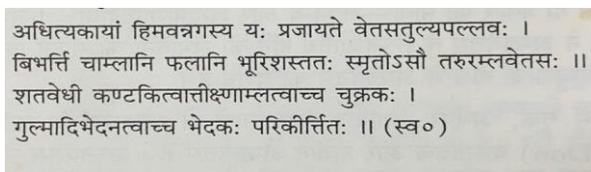
Due to these different Botanical sources, confusion regarding the final botanical source is constantly impacting the pharmaceutical industry and health industry. One of the important features is its morphological character, which is an important step in drug standardization. Thus, Morphological characteristics mentioned in *Nighantu Granthas* play an important role in deciding the botanical source of *Amlavetas* are mentioned in Image 1,2&3.



(Image 1)<sup>[19]</sup>



(Image 2)<sup>[19]</sup>



(Image 3)<sup>[20]</sup>

Images of Morphological characteristics show that the plant is found in the Himalayan region, with Leaves like *Vetas*, and Fruits have *Amla Rasa*, In *Raj Nighantu*, the habitat is said to be "*Himavata Parshava*", mentioned in *Phala Varga*, *Shatavedhi* denotes having spines all over the plant.

From the above description of habitat, synonyms, and properties, *Acharya P.V. Sharma* said that at place of *Garcinia pedunculata*, we should take *Hippophae salicifolia* D. Don. as *Amlavetas* in a *Ayurvedic journal Sachitra Ayurveda 2000*. The Botanical description of *Hippophae salicifolia* D. Don is as follows:

#### Taxonomy<sup>[21]</sup>

Root	Root
Kingdom	Plantae
Phylum	Tracheophyta
Class	Magnoliopsida
Order	Rosales
Family	Elaeagnaceae
Genus	<i>Hippophae</i>
Species	<i>Hippophae salicifolia</i> D. Don

Macroscopic, Microscopic, and Powder Microscopy of the leaf of the *Hippophae salicifolia* D. Don is described below.<sup>[22]</sup>

#### Macroscopic

It is a thorny shrub. Leaves blade abaxially whitish with usually reddish-brown midrib, adaxially green, linear-oblong, 4.2-6.2x0.6-1.2 cm, abaxially tomentose, adaxially stellate-hairy, margin usually revolute. Fruit ovoid, yellowish orange in axillary clusters.

#### Microscopic

Dorsiventral with two layers of palisade cells below the upper epidermis, the palisade cells are absent in the midrib region. The transverse section of the leaves of *H. salicifolia* showed a layer of upper and lower epidermis covered with a thin cuticle. The epidermal cells of the adaxial surface are slightly bigger than the abaxial region. The lower epidermal cells were completely covered with pressed stellate trichomes. *H. salicifolia* leaves had sunken stomata in both the epidermis. The silvery appearance of the leaf at the ventral surface is due to the dense covering of the trichomes which is the characteristic identity of the *Hippophae* leaves. The midrib portion of the leaf is composed of 5-6 layers of collenchyma cells below the upper epidermis which is followed by xylem vessels which stained pink with phloroglucinol-HCl, due to the presence of lignin. Three to four layers of phloem cells are found beneath the xylem vessels and six to seven layers of spongy parenchyma is seen above the lower epidermis.

#### Powder microscopy

Powder microscopy of leaves revealed the presence of different types of trichomes stellate, peltate, and a combination of both stellate-peltate trichomes, broken fragments of epidermis with palisade cells, and broken xylem vessels.

#### DISCUSSION

*Amlavetas* was well identified in ancient times but due to various reasons, controversy regarding its identification

started from *Tikakaar* (Commentators). *Charak* has described *Amlavetas* in the *Phala varga*. *Sushruta* has described *Vetrphala* in *Phala varga* at place of *Amlavetas*. The qualities that *Charak* has mentioned about *Amlavetas* are the same as *Sushruta* has said about *Vetrphala*. *Acharya Vagabhatta* did not describe any of these neither *Amlavetas* nor *Vetramla* or *Vetrphala*. *Rajnighantukar* again created confusion by giving an idea about two types of *Amlavetas*. *Vetas*, later came to be known as *Vetra*. Due to this, confusion has been made regarding *Amlavetas* so that *Dalhan* considered '*Vetramla*' and '*Amlvetas*' are the same. In *Kaidev Nighantu* and *Bhavprakash Nighantu*, '*Chhagamansdravtvakrit*' (Quick to melt when goat meat is added to it while cooking) features were also described.

Due to all the above-described facts, a few decades before *Acharyas* (Scholars) took *Garcinia pedunculata* Roxb as a botanical source of *Amlavetas* and it is named under *Vruntamlaphala* In API Part 1 Vol VI, and the botanical source is considered as *Garcinia pedunculata* Roxb. Also in today's era, the braided branch of *Revandchini* (*Rheum emodi* Wall ex Meissn) is given by the name *Amlavetas* in the markets of India.

But in *Gadnigraha* of *Sodhala*, the description of *Amlavetas* is different from *Garcinia pedunculata* that is as follows: Its trees grow in the Himalayan region, the Leaf looks like *Vetas* leaf, *Garcinia pedunculata* does not grow in the Himalayan region, Leaf of *Garcinia pedunculata* does not look like leaf of *Vetas*. Thus, a Clear botanical source was much needed regarding *Amlavetas*.

*Acharya P.V.Sharma* has published an article in *Sachitra Ayurveda* in year 2000 and mentioned that we should reconsider the botanical source of *Amlavetas* and after deep exploration, he has reached to the conclusion that the botanical source of *Amlavetas* should be *Hippophae salicifolia* D.Don which is more appropriate in the present scenario by following supportive features<sup>[20]</sup>: Have leaves like *Vetas*, found in the North-Western Himalayan region, and possess reddish-orange coloured berries that have *Amla Rasa* and potent sources of Vitamin C, It has also spines on it. The species prefers a habitat of temperate regions in Europe and Asia. In India, it is distributed in the Himalayan region of Uttarakhand, Himachal Pradesh, Jammu and Kashmir, and the North-Eastern parts.<sup>[23]</sup> It can be propagated through seeds, suckers and shoot cuttings.<sup>[24]</sup> Preliminary phytochemical screening of fruits contain Vitamins A,B<sub>1</sub>,B<sub>12</sub>,C,E,K, Polyphenols, Carotenoid pigments, Alkaloids, Saponins and Leaves contain Alkaloids but devoid of Saponins and flavonoids.<sup>[25]</sup> Pharmacological action of *Hippophae salicifolia* D.Don fruits and leaves have different activities like Antioxidant, Anticancer, Antiviral, etc. are shown in Figure no 1, which are similar to Actions of *Amlavetas*.

Antioxidant  
Anti-inflammatory  
Anticancer  
Antihyperglycemic  
Antiviral  
Antihyperlipidemic  
Antimicrobial  
Anticoagulant and  
Antiplatelet  
Neuroprotective  
Ulcer healing property



**Figure no. 1: (Pharmacological action).**<sup>[23][25]</sup>  
(Plant images of *Hippophae salicifolia* D.Don)

## CONCLUSION

Hence, In this article, an attempt has been made to conclude the botanical source of *Amlavetas* which is *Hippophae salicifolia* D. Don elonging to the family Elaeagnaceae. A literature review of *Amlavetas* is done. A review of the pharmacognostic study and pharmacological action of *Amlavetas* (*Hippophae salicifolia* D. Don) has been done. By looking at Habit, Habitat, and Morphological characteristics, and pharmacological action it is concluded that the botanical source of *Amlavetas* is *Hippophae salicifolia* D. Don. It is the need of the hour to have a scientific study regarding *Amlavetas* should be done properly with the correct botanical source.

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