



Review Article On Aushadha Matra In Ayurveda And Study Of Various Factors Used For Determination Of Matra.

Dr.Akshata Tukaram Davane¹,Vd.Parashuram Sahadu Pawar², Vd.Pritam Suryabhan Pawale³,Vd.Ketaki Pravin Deshmukh⁴,
Vd.Santoshi Vasantrya Patil⁵, Vd.Vrushali Balasaheb Dani⁶

¹PG Scholer, ²HOD, Professor & Guide, ³Associate professor, ^{4,5,6}Assistant Professor, dravya Guna Department, Shree Saptashrunji Ayurved College & Hospital, Nashik.

ABSTRACT-

Ayurveda is a very distinct medical science and has some unique features. *Ayurveda* mainly focus on the preventive aspects and helps in promotion and prolongation of a healthy and happy life. *Ayurveda* believes that success of any treatment is totally depends upon *Chatushpada* of *Chikitsa*. *Chatushpada* are *Bhishag* (physician), the *Upastha* (Medical Attendant), *Rogi* (patient) and *Dravya* (medicine). The medicine is one of the important part of treatment. So these medications should be given in proper quantity. If it is properly used in *Samyak matra*, it cures diseases. If it is used in *Atimatra*, it may harm. Same way if it is used in *Hina matra*, may not be capable to cure the disease. It is the *Matra* only by which *Visha* becomes *Amruta* and vice versa *Ausadha* becomes *Visha*.

The *Matra* depends on various factors like patient's age, sex, *prakriti*, strength, *desha*, *agnibala*, *satva*, *dosha*, severity of disease and medicines used. These factors are very useful for determination of medicinal dose according to *rogi*. These can be correlated with modern Pharmacology factors like age, weight, surface area, and enzymatic action etc. These factors can be compiled in the *Balachatustay* namely *Dehabala*, *Agnibala*, *Chittabala* and *Rogabala*.

Keywords-*Aushadhi matra*, *vyadhi*, *rogi*, *ausadha*.

INTRODUCTION-

Matra means measurement of any kind, size, duration, number, degree, etc. This *matra* has significant importance from ancient period. In various *samhitas* like *charak*, *sushrut*, *kashyap samhita*, *sharangdhar samhita matra* has been explained.

मात्रा मूल चिकित्सितम् (का.सं.खि.)

Matra is the main core of treatment. *Roga*, *Rogi* and *ausadha* are the main components of treatment⁽¹⁾. The success of treatment depends on dosage, time and proper administration (*Yukti*). Every physician gives importance to these two factors *Matra* and *Kala*, where *Matra* is more important.

DEFINITION OF MATRA –

मात्राशी स्यात् आहार मात्रा पुनरग्निबलपेक्षणी | (च.सू.4)

In *charak samhita matrashitiya adhyaya acharya charak* described *matra* in relation to intake of food as the amount of food which, without disturbing the equilibrium of *dosha* and *dhatu* of the body and get digested as well as metabolised in proper time. *Ahar matra* depends on *agnibala* and it is to be regarded as proper quantity.⁽²⁾

Chakrapani in his commentary described *matra* of *ahar* and *aushadh* should be taken in proper quantity. It produces good results. Also it doesn't cause any undesired results when taken in proper quantity. ⁽³⁾

Classification of *Matra*

Acharya Chakrapanidanta classified *Matra* into following types-

1. *Ahar matra*
2. *Vyayam Matra*
3. *Aushada Matra*

Here the main importance and preference will be given on *Aushadhamatra* or *Bheshajamatra*, because *Aushada* is said second *Pada* of *Chatushpada* mentioned by *Charaka*.

Aushadha Matra is divided into-

- *Matravat Aushadha*- When any *Aushada* or *Ahara* is taken in correct quantity is beneficial or suitable to person. It should act fast, easily metabolised and should not cause any harm to the body. ⁽⁴⁾
- *Amaravat Aushadha* - When any *Aushada* or *Ahara* is taken in improper quantity is not beneficial to person. ⁽⁵⁾

Again *Amaravat Aushadha* is divided into

मात्रावत्त्वं पुनर्द्विविधमाचक्षते हीनम् अधिकं च

- 1) *Hina matra*
- 2) *Ati Matra*

i. <i>Hina Matra</i>	ii. <i>Atimatra</i>
Unable to treat disease	Cause the vitiation of <i>Tridoshas</i> leading to other undesired results.
Does not create any <i>Dhatu Samyata</i>	Excreted by <i>Malamargas</i> without being absorbed.
Usage of <i>Sodhana Ausadha</i> in <i>Hinamatra</i> , produce <i>Utklesa</i> of <i>Dosha</i> and <i>Ayoga Vyapada</i> i.e. unable to eliminate <i>Doshas</i> completely occurs.	Usage of <i>Sodhana Aushadha</i> in <i>Atimatra</i> , causes <i>Atiyoga</i> and may result into emergency and risk of life too.

SPECIAL MATRAS

- 1) *Vardhamana Matra* -

It is a special dose design when drug to be administered in excessive dose and to make the biological platform ready to assimilate the greater dose of the same drug gradually, and to avoid its dependency or withdrawal symptoms. Further the gradual increase of dose may reach the deeper tissues in due course of time. Example: *Vardamana pipalli rasayan*, *Bhallatak kalpa* etc.

- 2) *Hrasiyasimatra*-

In *Shenapana Vagbhata* and *Sushruta* described *Hrasiyasimatra* to know the *Agnibala* of patients before fixing the dose, it is something like test dose. ⁽⁶⁾

ह्रस्वमध्योत्तमा मात्रास्तास्ताभ्यश्च हसीयसीम् कल्पवेद्वीक्ष्य दोषादीन् प्रागेव तु हसीयसीम् (A.H.Su.16/18)

DETERMINATION OF BHAISHAJ MATRA-

तत्र सर्वाण्यवैषधानि व्याध्यग्निपुरुषबलान्यभि समीक्ष्य विद्ध्यत् (सु० सू० 39/10)

According to *acharya sushrut*, dose of medicine should be determine on the basis of the *vyadhibala*, *agnibala* and *rogibala*.⁽⁷⁾

स्थितिर्नास्त्येव मात्रायाः कालमग्निं वयो बलम् । प्रकृतिं दोष देशो च दृष्ट्वा मात्रांप्रकल्पयेत् (शाः पू० 1 / 37)

Acharya sharangdhar told *kala*, *agni*, *bala*, *vaya*, *prakriti*, *dosha* and *desha* are the factors on which *aushadh matra* can be determine.

मात्राया नास्त्यवस्थानं दोषमग्निं बलं वयः । व्याधि द्रव्य च कोष्ठं च वीक्ष्य मात्रांप्रयोजयेत् (केः निः मिः 178)

In *kaidev nighantu*, *acharya* told that dose medicine is not fixed. It should be determine on diseased persons *dosha*, *agni*, *bala*, *vaya*, *vyadhi*, *koshtha* & *aushadh dravya*.

According to *ashtang hridaya*, *dushya*, *desha*, *bala*, *kala*, *agni*, *prakriti*, *vaya*, *satva*, *satmya* and *aharavastha* are helpful to decide *aushadh*.⁽⁸⁾

Aushadh matra is determined by following three main factors -

- 1) As per *Rogi*
- 2) As per *Vyadhi*
- 3) As per *Aushadh*

- As per *Rogi* - there are many factors in diseased person from which we can determine *aushdha matra*. They are as follows

a) Acc. To Age-

In this factor first we see *vaya vibhajan* according to *acharya charak*, *sushrut* & *vagbhat*

	Charak	Sushrut	Vagbhat
<i>Balyavashtha</i>	a) <i>Aparipakva dhatu</i> - 1-16 yrs b) <i>Paripakva dhatu</i> - 16-30 yrs	a) <i>Ksheerap</i> -upto 1 yr b) <i>Ksheeranad</i> from 2-4 yrs c) <i>Annad</i> - from 4-16 yrs	a) <i>Kumar</i> - from birth to 16 yrs b) <i>yauvan</i> -from 16-34 yrs
<i>Madhyamavastha</i>	30-60 years	16-70 years a) <i>Vrudhi</i> -16-20 yrs b) <i>Yauvan</i> -20-30yrs c) <i>sampurnata</i> - 30-40yrs d) <i>Hani</i> -40-70yrs	34-70 years
<i>Vrudhavastha</i>	60-100 years	After 70 years	More than 70 years

According to *acharya charak*, *shastrokta dravyapraman* is useful for *madhyam vaya*, *madhyakoshta* and *madhyabala* person. *Alpa matra* is used for *hina* & *adhik matra* is used for *adhika*.⁽⁹⁾ In children *dosha*, *dushya*, *mala* & *vyadhi* are less than *madhyam ayu* so *aushadh matra* also used in small quantity.⁽¹⁰⁾

According to *acharya sushrut*, as the age is increased in the same manner *aushadh matra* is increased except *vrudhavastha*. For children *acharya sushrut* gave following measures .⁽¹¹⁾

Ksheerap - anguliparvadwaygrahan (one pinch of)

Ksheeranad - kolasthi praman

Annad -Kola praman

According to *Acharya sharangdhar - churna & Kalka* have following *matra* according to age

1st month	1 <i>ratti</i> (125 gm)
2nd month to 1 year	Acc. To month increase by 1-1 <i>ratti</i>
For 1 year	12 <i>ratti</i>
1 year to 16 years	Increase by 1 <i>masha</i> per year
16 years	16.5 gm
16-70 years	<i>Sthir matra</i> 16.5 gm
More than 70 years	As age increase by 1 year Decrease <i>matra</i> by 1 gm

According to *Vishwamitra-*

विडंगफलमात्रं तु जातमात्रस्य भेषजम् एतेनैव प्रमाणेन मासि मासि विवर्द्धयेत्।

कोलास्थिमात्रं क्षीरादेदद्यात् भेषजकोविदैः क्षीरान्नादेः कोलमात्रमन्नादोदुम्बरोमतम् (विश्वामित्र)

<i>Jatamatra</i> (new born)	<i>Vidangphala praman</i>
<i>Pratimasa</i>	Increase by 1 <i>vidangphala</i> in each month
<i>Ksheerap</i>	<i>Kolasthi praman</i>
<i>Ksheerannad</i>	<i>Kola praman</i>
<i>Annad</i>	<i>Udumbar praman</i>

In *kashyap samhita khilasthan acharya kashyap* mentioned *aushadh matra* as follows

1-10 days	Equal to <i>badariphala beeja</i>
10-20 days	Equal to half <i>badri phala</i>
1 month	Equal to <i>badri phala</i>
1-2 month	Equal to 1.5 <i>badri phala</i>
3 months	Equal to 2 <i>badri phala</i>
4 months	Equal to dry <i>amalaki fruit</i>
5-6 months	Equal to wet <i>amalaki fruit</i>
7-8 months	More than <i>amlaki fruit</i>

b) Acc. To sex -

As males are *drudha indriya* so *aushadh* should be given in *vrudha matra*. So that females are *sukumar* so *aushadh* should be given in *rhasva mata*. In pregnant women, after pregnancy and in menstrual periods drug should be given in small quantity. In pregnant women *tikshan aushadh & tikta dravya* should be given in small quantity.

c) Acc. To *Prakriti* -

In *vataj prakriti* people *vatavardhak* medicine should be given in *alpa matra*. So that in *pittaj prakriti*, *pittavardhak aushadh* given in small quantity. *Kaphaj prakriti*, *kaphavardhak* medicines given in small quantity.

d) Acc. To *Bala* (Strength) -

The dose of medicine is decided on the basis of patient's strength. If excessive amount of medicine dose given to *durbala rogi* he may die.⁽¹²⁾

पुरुषबलादधिकं ग्लानिमूर्च्छाम् दानावहति संशमनम् एव संशोधनम् अतिपातयति।

हीनमेभ्यो दत्तमकिञ्चित्करं भवति तस्मात्सममेव विदध्यात्॥ (सु.सू.39/10)

If *sanshaman* medicines gives in large quantity causes *glani*, *murchha*, *madakarak*. If it is given in small quantity it becomes *nishphal*. If *sanshodhan* medicines given in excessive amount causes *atiyoga*. If it given in small amount it is *nishphal*.⁽¹³⁾

We can give large amount of medicine to *balavan rugna* but *hina bala rugna* cannot tolerate so it should be given in small amount.

e) According to *satva* (psychology)-

Pravar, *madhyam satva* - *madhyam matra*

Hina satva - *hina matra*

f) According to *Agnibala* (power of Digestive juice) -

तस्मात् मन्दाग्नौ अल्प प्रमाणं, तीक्ष्णाग्नौ अतिप्रमाणं भेषजस्य कर्तव्यम् (द्र० गु० शा०)

drug quantity inferior to the patient's *agnibala* - *nishphala*

drug dose equal to the *agnibala* of the patient - *gunakari*

drug dose exceeding the *agnibala* of the patient - causes *ajirna*, *vishthambh*⁽¹⁴⁾

In *Mandagni* patient - small quantity

Samagni patient - even quantity

Tikshangni patient- large quantity

g) According to *Koshtha*-

Mrudu koshtha, *rikta koshtha* - *alpa matra*

Madhyam koshtha - *madhyam matra*

Krur koshtha, *purna koshtha* - *vrudha matra*

h) According to *Satmya* -

Satmya dravya - *madhyam matra*

Asatmya dravya - *alpa matra*

Oka satmya dravya - *ati matra*

i) According to *Desha* (habitat) -

Patients from *ushna desha* - *sheeta dravya* in more amount

Patients from *sheeta desha* - *ushna dravya* in more amount

- **Aushadhi matra As per Vyadhi** - According to severity, duration, pathology and site of disease dosage of drug changes.

A) According to *Vyadhi bala* (severity of disease) -

तत्र व्याधिबलादधिकमौषधमुपयुक्तं तमुपशम्य व्याधिं व्याधिमन्यमावहति । (सु. सू.39/10)

If disease is severe give best quantity of drug & if disease is mild give hina matra drug to the patient. If drug dose more than *vyadhi bala* given to patient causes *upadrava* to patient and if drug dose less than *vyadhi bala* given to patient it is *nishphala*.⁽¹⁵⁾

B) According to *Vyadhi kala* (Duration of Disease)-

New disease without any complications give small amount of drug to the patient. New diseases with complications give large amount of medicine. Chronic disease without complications give *madhya matra* of the drug. Chronic disease with complications give large amount of drug.

C) According to *dosha dushya* (pathology of disease) –Dosage of drug should be decided according to *dosha & dushya*⁽¹⁶⁾

Bahudoshyukta vyadhi -large amount of drug dose

Alpadodhayukta vyadhi -Small amount of drug dose

If *Doshas* are in large number, having different Constitution from *dosha* – large amount of drug dose

If *Dushya* are less & having same as *dosha*- Small amount of drug dose

D) According to site of disease-

Disease form in *gambhir desha* -*shreshtha matra*

Disease form in *anya desha* – *alpa matra*.

- As per *aushadha* –

- According to *guna -dosha* of medicine

Tikdhna virya medicine- 1 tola

Madhyam virya medicine -2 tola

Mrudu virya medicine -4 tola

Medicine which having large amount of *dosha*- *alpa matra*

Medicine which having small amount of *dosha*- *ati matra*

- According to habitat of drugs –

Medicines grow in *satmya desha* of patient- *madhyam matra*

Medicines grow in *anya desha*-*adhik matra*

- According to Formulations of drugs-

Acharya sharangdhar mention dose of different formulations –

<i>Swaras -1/2 pala</i>	<i>churna -1 karsha</i>
<i>Putapaka swaras -1 pala</i>	<i>avaleha -1 pala</i>
<i>Kalka-1 karsha</i>	<i>pramathya-2 pala</i>
<i>Kwath-1 karsha</i>	<i>sneha- 1 pala</i>
<i>Hima-2 pala</i>	<i>sandhan -1 pala</i>
<i>Phanta-2 pala</i>	<i>vati -1 masha.</i>

Conclusion-

Aushdha matra is main root of treatment. There is a saying about the dose that when poison is taken in minute quantity it acts like *Amrutham* and vis a vis. As a small amount of water cannot extinguish fire, similarly medicine in small quantity cannot cure a disease and irrigation with over flood water is harmful for the crops .similarly medicine in excessive quantity is harmful for the patients. Therefore, after carefully examining the strength of the disease and the medicine, the remedial measures should be administered in a quantity which is neither too large nor too small.

According to *Acharya sharangdhar* persons of present era(*kalyug*) are with low digestive power, lesser tolerance and short life span, so the suitable dose of the drug should be decided by the physician with his own intellect. As mentioned earlier, it depends on various factors like *Agni, Bala, Vaya,linga,Vyadhi, Dravya, Kosta, Prakriti, Satmya,Desha,kala, Bhesaja* etc. So for the treatment of disease *audhadha matra* is playing very important role.

References-

- 1.Nepal Rajgurunam pandit Hemrajsharmana, Kashyap Samhita,Varanasi,Chaukhamba sanskrit sansthan, Khilsthan
2. Sharma RK, Bhagwan Dash. Charaka Samhita (Eng. Translation) Vol. I (Sutrasthana). Varanasi; Chaukhamba Sanskrit Series Office; Sloke 4, pg.no.106
- 3.Sharma RK, Bhagwan Dash. Charaka Samhita (Eng. Translation) Vol. I (Sutrasthan). Varanasi; Chaukhamba Sanskrit Series Office; chakrapani commentary, Sloke 4, p. 106.
4. Agnivesha, charaka samhita, Vol- IV, Siddhithana, published by Gulabkunverba Ayurvedic University, Jamnagar, 1949, Shloke 15-16, page 2735.
5. Sharma RK, Bhagwan Dash. Charaka Samhita (Eng. Translation) Vol. I (Sutrasthana). Varanasi,Chaukhamba Sanskrit Series Office; chakrapani commentary, Sloke 4, p. 106
- 6.Dr.Ganesh krushna Garde,sartha vagbhat (marathi translation),varanasi ,chaukhamba surbharati prakashan ,shlok 18 ,pg.no.70
- 7.Vd.P.G.Athavale, Drushtartha Sushrut Chintan, part 1 , Nagpur, Godavari Publication & book pramotors, shlok no. 10,pg.no.299

8.Dr.Ganesh krushna Garde,sartha vagbhat (marathi translation),varanasi ,chauhamba surbharati prakashan ,shlok 67 ,pg.no.59

9.Vd.Vijay Shankar Kale, Charak Samhita, Delhi, Chaukhamba sanskrit Pratishthan,kalpasthan,shlok 82,pg.no.850

10.Vd.Vijay Shankar Kale, Charak Samhita, Delhi, Chaukhamba sanskrit Pratishthan,Chikitsa sthan,shlok 282,pg.no.770

11.Vd.P.G.Athavale, Drushtartha Sushrut Chintan, part 1 , Nagpur, Godavari Publication & book pramotors, shlok no. 37,pg.no.272

12.Kaviraj Shree Atridevaji Gupta,Charak Samhita,Banaras,Bhargav Pustakalay gayaghat Banaras, Bhag 1 , Vimansthan, shlok 14 , pg. No. 563

13.Vd.P.G.Athavale, Drushtartha Sushrut Chintan, part 1 , Nagpur, Godavari Publication & book pramotors, shlok no. 10,pg.no.245

14.Vd.P.G.Athavale, Drushtartha Sushrut Chintan, part 1 , Nagpur, Godavari Publication & book pramotors, shlok no. 10,pg.no.299

15.Vd.P.G.Athavale, Drushtartha Sushrut Chintan, part 1 , Nagpur, Godavari Publication & book pramotors, shlok no. 10,pg.no.299

16.Kaviraj Shree Atridevaji Gupta,Charak Samhita,Banaras,Bhargav Pustakalay gayaghat Banaras, Bhag 1 , Vimansthan, shlok 14 , pg. No. 563