

THE CONCEPT OF *BALA*, *BALA PAREEKSHA* AND ITS CLINICAL IMPLICATION

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ABSTRACT

Bala is considered as the physical and mental strength of the individual. It can be assessed in healthy individuals as well as diseased. It is helpful in assessing the severity of the disease. The knowledge of *bala* of a patient is needed to know about the prognosis and to fix the dosage, to adopt proper treatment modality and to advice proper regimens for a healthy life style. Information on *bala* is available in *Ayurvedic* texts, but at different contexts. Among the explanation given are, *bala* is one which prevents the *roga*, one which is *adhistana* of *arogya* and treatment is given for protecting it. Thus examination of *bala* of an individual is important. It cannot be assessed solely on basis of parameters alone like body built, as it has explanation in different contexts like, role of *ojus* in *bala*, assessment of *prakrutha Kapha* as *bala*, assessment of *shareerika*, *manasika* and *vyadhikshamatva bala*. There are different methods available for assessing *bala*, so in this study an attempt is being made to collect informations available on concepts of *bala* and suggest an appropriate method for assessment of *bala*.

Keywords: *Ojus*, *Vyadhikshamatva*, *Ardha vyayama shakti*, *bala*

NEED FOR STUDY

There are different concepts on *bala* and it is of wide use in health and treatment of an individual. There is a necessity to understand the concept of *bala pareeksha* in patients and healthy individuals. *Charaka*, *Vagbhata* and *Sushruta* have explained about concepts of *bala*. The present review was done in order to collect the concept of *bala*, its *pareeksha* and its implication.

MATERIALS & METHODS

A thorough search was done in *Ashtanga Hrudaya*, *Charaka samhitha*, *Sushruta Samhita* and the available commentary on it and the contents and references were analyzed and used for the study.

Various concepts of *bala* in *Ayurveda*

Ojus as *bala*

Acharya Sushruta mentions that the final and excellent essence of *dhatu*s beginning with *Rasa* to *Shukra* is *Ojus* and that *Ojus* is said to be *bala*.¹ *Dalhana* has commented on this as *Ojus* is the cause for predominance of *bala* to *sampurna shareera*.² *Vagbhata* supports this by mentioning that *Ojo vrudhi* leads to *thushti*, *pushti* and *bala*.³ *Acharya Charaka* says that normalcy of *Kapha* is said to be *bala* and it is considered to be *ojus*. Vitiated *kapha* is *mala* and it causes disease.⁴ *Sushruta* also mentions *Prakruta karma* of *ojus* as, stability, growth of muscles, ability to perform all the activities without any hindrance or obstruction, clarity of voice, brightness or complexion.⁵

Shareerika bala

Charaka explains regarding *dasha vidha bala pareeksha*, which is a combination of *rogi pareeksha* and *roga pareeksha*. *Prakrutyadi* nine fold examinations except *vikrititah* are for *athura bala pramana*. *Vikrititah pareeksha* is for *vyadhi bala pramana*.⁶ *Sushruta* mentions about *sthaulya*, *karshya* and *Madhya shareera*, among them *madhya shareera* is considered *balavan*. One who consumes food which is not excessive unctuous and dry, digested *annarasa* circulates all over the body and nourishes all *dhatu*s equally. Due to this the person is said to be *madhya shareera*. He is having good ability to perform the physical activities, he can tolerate hunger, thirst, cold, heat, pain, sunlight. He is said to be *balavan*.⁷ *Charaka* explains about *sama samhatha purusha*, that one whose *shareera mamsa* and *shareera samhanana* are even in measurement, whose *indriyas* are stable, devoid of *vikara* due to good *bala*, who can tolerate hunger, thirst, heat, cold, increased body activities, whose *jataragni* and digestion are good.⁸ This can be considered as strength attained by proper food intake, the physical abilities and proper sensory perception.

Manasika bala

One among the *dasha vidha bala pareeksha* is *satwa pareeksha* which can be considered as mental strength. It is of *pravara*, *madhyama* and *avara* respectively.⁹

Vyadhikshamatva bala

Charaka explains regarding *Vyadhikshamatva* as, all *shareera* will not have similar *vyadhikshamatva*. This is considered as one's immune power. It varies from person to person. *Chakrapani* comments that it is the one which protects the body from disease and prevents from reoc-

currence of disease. *Charaka* explains about *Vyadhi asaha purusha* as, one who is *athisthula*, *athikrusha*, whose *mamsa*, *shonitha* and *asthi dhatus* are not well formed, who is *durbala*, who consume *asatmya ahara*, who consume less quantity of *ahara* and who is *alpa satwa*, these persons will not have *vyadhikshamatha*. The persons opposite to these features possess *vyadhikshamatha*.¹⁰

Types of bala: It is of 3 types *sahaja*, *kalaja* and *yuktikrutaja bala*.

Sahaja bala The *shareerika* and *manasika bala* which is attained due to *matruja* and *pitruja bhavas* like *rasa rakta virya ojus* is *sahaja bala*, which can be considered as strength attained from hereditary.

Kalaja bala It explains two aspects of *bala* i.e one which is attained from impact of *rutu*s and other which is attained in different *vayas*. In *adana kala* the *bala* of individual will be less and in *visarga kala* it will be more. The *bala* will be *alpa*, *uttama* and *alpa* in child, young and old age respectively.

Yuktikrutaja bala *Bala* which is attained from food and nutrition and physical activities.¹¹

Method of bala pareeksha

Charaka while explaining the *pareeksha* by *anumana pramana* mentions that *Bala* should be assessed by *vyayama shakti*.¹² *Vyayama* means performing different bodily movement i.e. *chesta*.¹³ Through ones *vyayama shakti*, *karma shakti* can be assessed and it can be classified under three types i.e. *pravara*, *madhyama* and *avara bala*. If the person can perform more physical work then he is of *pravara bala*, if moderately then *madhyama bala* and if less then *avara bala*.¹⁴

Sushruta explains that *bala* is one among *dwadasha pareeksha*. The physician before commencing treatment, should first examine *ayu, vyadhi, rutu, agni, vaya, deha, bala, satva, satmya, prakruti, bhesaja*, and *desha* should be examined.¹⁵ *Vagbata* explains that physician should examine ten factors such as *dushya, desha, bala, kala, anala, prakruti, vaya, satva, satmya and ahara*.¹⁶

The bala can be assessed by *dasha vidha athura bala pareeksha* as follows:

Prakruti – If the person is of *Vata prakruti* then he is having *alpabala*, of *Pitta prukruti* then *madhyama bala* and of *Kapha prakruti* then *balavan*.

Vikruti - Here the *roga* is assessed through *dosha, dushya, kala, bala*.

Sara: To know the *bala* of *purusha, ashta saras* are explained. If the person is of *Rakta sara* then he is having *anatibala*, if the person is of *Mamsa, Majja* and *Shukra sara* then he is *balavanta* and if the person is of *Sarva sara* then he is *atibala*.

Samhanana: The compactness is explained as well demarcated bones, well bound joints and well formed muscles and blood. If a person's compactness is good then he is *balavan*, if not, *alpabala* and if his compactness is moderate then he is of *madhyama bala*.

Pramaanatah: It's measured by one's own *anguli pramana*. The person with proper measurement of the body are endowed with longevity, strength, immunity, happiness, supremacy, wealth and other desired qualities. The body with less or more measurement has qualities contrary to this.

Satmyatah: If the person is *Sarvarasa satmya* then he is *balavan*, if the person is *Eka*

rasa satmya then he is of *alpabala* and if *madhyama* then *madhyama bala*.

Sattwatah: Here *satwa* means *mano bala*. It is of three types. The person with *pravara satwa* possesses *pravara dheer, dhruthi* and *smruti*, he will be able to bear stronger therapies, can tolerate severe *nija* and *agantuja roga*, adopts same sort of feelings towards happiness or sorrow, will be under control by themselves and predominant of *satwa guna*. The person with *madhyama satwa* will be of *madhyama dheer, dhruthi* and *smruti*, he will be able to bear stronger therapies, predominant of *rajo guna*, tolerates when controlled by others, with much difficulties tolerates severe *nija* and *agantuja roga*, he tolerates and adjust to pain or odd situations. Persons with *avara satwa* will have *avara dheer, dhruthi* and *smriti*. They cannot sustain mental stress, in spite of having good physic they are susceptible to fear, grief, greed and delusion. If they hear frightening narratives or on the look of animal or human flesh or blood, get afflicted with anxiety, fainting or even succumb to death. These people are contra indicated for *samshodhana* therapy, they cannot tolerate pain, and they are predominant in *tamoguna*.

Ahara shakti: This is examined by the power of ingestion as well as digestion. Strength and life depend on *ahara shakti*.

Vyayama shakti: If the person can perform more physical work then he is of *pravara bala*, if moderately then *madhyama bala* and if less then *avara bala*. **Vaya shakti :** *Baala*- up to 16 yrs are *alpa bala*, *Madhyava*- 16 to 60 yrs are *uttama bala* and *Jeernaavastha*- 60 to 100 yrs are *alpa bala*.¹⁷

Balaardha lakshanas:

It is told that *bala* should be examined through *vyayama shakti*. But up to what extent one should perform *vyayama* is not mentioned. So here the reference of *samyak vyayama lakshana* and *bala ardha lakshana* or *ardha vyayama shakti* can be adopted. After appearance of these symptoms one should stop performing the *vyayama*. The *lakshanas* are appearance of sweat over forehead, axillary region, nose, hands, foot, joints and *mukhashosha*, increased respiratory rate, lightness of the body, increased heart rate.^{18, 19}

Methods available in modern science at present day are:

Harvard step test: The individual should step up and down off a gym bench for 5 minutes at a rate 30 steps/minute. The pulse is measured every one minute after finishing the test. Pulse1, pulse 2 and pulse 3 are recorded and it is calculated in this formula.

Result = $30000 \div (\text{pulse1} + \text{pulse2} + \text{pulse3})$

Handgrip strength test: The individual holds the handgrip dynamometer in the hand, with the arm at right angles and the elbow by the side of the body. Squeeze the dynamometer with maximum isometric effort, which is maintained for about 5 seconds. Result is recorded in kilograms.

Push up Test: To do this, the individual should kneel on the floor, hands on either side of the chest and keep the back straight. Do as many pushups as possible until exhaustion. The total number of pushups performed is counted.

Bruce Protocol Stress Test: The individual is made to run on a tread mill. At three minute intervals the incline of the treadmill increases by 2% and the speed increases.

The test score is the time taken on the test, in minutes.²⁰

Clinical implication

- For *balavan rogi* the treatment given yields better result and the prognosis is good. If *rogi* is *durbala*, the treatment may not yield better results and the prognosis may be bad.

- To understand the prognosis of disease like in *rajyakshma* if patient's *bala* and *mamsa* is *kshina* then the disease will turn into *asaadhya* and if the *bala* and *mamsa* is *akshina*, the disease is *saadhya*. To decide the nature and potency of the drug, assessing the *bala* is helpful.

- Administration of *thikshna veerya aushadhi* to a *durbala* person leads to *shareera hani* and *heena veerya aushadhi* to a *sabala* person leads to reduced action of drug.

- The dosage of drug can be fixed on *prava*, *madhyama* and *avara bala* respectively to avoid *upadrava*.

- If *samshodhana aushadhis* administered to a *dhurbala rogi*, it may lead to *athi dosha kshaya* which intern leads to *athi dhurbala*. So assess the *bala* of patient before *shodhana*.

- As *mano* and *shareerika bala* are *uttama* in *guruvyadhita*, physician may get confused as *laghu vyadhita*. Similarly, *mano* and *shareerika bala* are *heena* in *laghu vyadhita*, physician may get confused as *guru vyadhita*.

DISCUSSION

As *bala* is assessed by *vyayama shakti*, it can be considered as *shareerika bala*. *Satwa* is considered as *manasika bala*. The concept of *ojus* and its *karma* can be considered as *vyadhikshamatva bala*. So *bala* can be assessed in three ways i.e. physically, mentally and immunologically.

For assessing the *manasika bala*, *pravara*, *madhyama* and *avara satwa* qualities are assessed. For assessing *vyadhikshamatva bala*, the *lakshanas* of *vyadhi asaha purusha*, *sahaja bala*, *kalaja bala*, *yuktikrutaja bala* and *ojo bala* should be evaluated.

For assessing the *shareerika bala*, different *vyayama* such as *tulabramana*, *gunakarshana*, *dhanurakarshana* are explained in the texts. Similarly in modern aspect, different methods such as Harward step test, Bruce protocol stress test, Push up test, Hand grip test are explained. These methods can be adapted to assess the physical strength.

CONCLUSION

Bala pariksha is an important factor for ascertaining *rogi bala*, prognosis and proper treatment. It is an important factor for assessing the fitness levels of apparently healthy persons. It can be improved by adopting proper *ahara* and *vihara*. Physician should give importance to *bala pareeksha* before commencing the treatment. Different tests in modern science can be used to assess the physical strength.

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