



## **Skanda (Bala Graha) and Cerebral Palsy – A Review**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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### **ABSTRACT**

Among the Ashtanga Ayurveda, Kaumarbhritya focuses on child care in particular. *Graharogais* the most neglected portion due to excess mythological explanation, difficulty in clinical understanding, diagnosis, severity, complication, and treatment is entirely different from the routine disorder of children. *Graharogas* are those entities that attack and seize the body then affect the neonates and children very quickly with high mortality. Different acharyas describe *Graha* with their types, symptoms and treatment. *Acharya Sushruta* and *Acharya Vagabhatta* describe *Skanda graha*-commander-in-chief of the army of Devatas. The symptoms of the affected child resemble very much with Quadriplegic Cerebral Palsy. Cerebral palsy (CP) is the leading cause of childhood disability affecting function and development. The motor disorders of cerebral palsy are often accompanied by disturbances of sensation, perception, cognition communication, and behavior. Therefore, this paper aims to understand *Balagraha* with the modern aspect as well as its clinical application in day-to-day practice.

**Keywords:** Ayurveda; Bala Graha; Skanda Graha; Kaumarbhritya.

## 1. INTRODUCTION

Among the *Ashtanga Ayurveda*, *Kaumarbhritya* is the one focuses on child care in particular. There includes a detailed description of children's ailments, as well as information on how to prevent them and how to treat them. *Graharoga* is the most neglected portion due to excess mythological explanation, difficulty in clinical understanding, diagnosis, severity, complication, and treatment is entirely different to routine disorder of children. *Graharogas* of *Kaumarbhritya* are different entities than *Grahabadha*. *Graharogas* are those entities which attack and seize the body. They affect a large number of neonates and pediatric age group. Their progression in the human body is quite quick, and they have a high fatality rate. In certain cases, they endanger the lives of the children who are impacted. Disease caused by unidentified factors are termed as idiopathic in modern science but *Balagraha*, *Jataharnis*, *Matrikas*, *Adibalprivritta* and *Janambalprivritta*, etc. Disorders are associated with goddesses, earlier birth sins, and evil deeds in our daily lives in our classics. *Grahas* afflict children for worship if the wet nurse and mother engaged in previously forbidden activities, are unhygienic, and do not behave in an auspicious manner, or if the children themselves are terrified, excited, terrorized, and beaten [1].

The oldest literature we have is the *Vedas*, which clearly describe *grahaas* as a source of sickness. The *Rig-veda* first mentions *bhutas* as a threat to the fetus and infant [2]. The word *grahi*, according to Acharya *Sayana*, means "to hurt the infant." Mahabharata explained the morphology of the *grahas* with their physical character and symptoms of *grahas*. *Varahamihira* explains the effect of worshipping the *grahas*. A More Significant contribution was given by *Agnipurana* which explains 38 *Grahas* attacking from the first day to 17 years of life is explained. *Markandeya Purana* explains 16 demons out of which 8 are male and 8 are female. According to mythology Lord *Shiva* appointed 5 male and 7 female *Grahas* to care for and protect his son *Kartikeya*. *Skanda graha* is produced by Lord *Shiva* whereas *Skanda Apasmara* by *Agni*, *Naigamesa* by *Parvati*, and *Mukhamandika* and *Putana* by *Kartikeya* [3] *Acharya Charak* didn't mention any numbering and called them *asankhya*. *Bhavprakash* and *Susruta* described 9 *Grahas* to which *Vagbhata* and *Yogratnakara* added 3 more *Grahas*. 12 *Grahas* out of which 5

are said to be male *Grahas* and 7 are female *Grahas*. *Harit* described about only 8 *Grahas* [4].

## 2. GRAHA TYPES ACCORDING TO DIFFERENT SAMHITA

*Sushruta* explains predisposing factors, mode of onset, manifestation, management with general and specific *gunas* of *Graha* named –*Skanda*, *Skandapasmara*, *Shakuni*, *Revati*, *Putana*, *Andhaputana*, *Shitaputana*, *Mukhamandika*, and *Naigamesa*. *Sushruta* cautioned that wounds are to be protected from *grahas* and a neonate shall be nursed like a wounded person. In Uttara tantra of *Sushruta Samhita*, a detailed description of *grahas* is available.

In *Astangasamgraha*, *Acharya Vagbhata* has added three more *grahas* named *Swagraha*, *Pitrigraha*, and *ShushkaRevati*. Twelve *grahas* which have been classified as five male – *Skanda*, *Vishakha*, *Mesha*, *Swagraha*, *Pitrigraha* [5] while five female *graha* which are seven – *Shakuni*, *Putana*, *Shitaputana*, *Andha Putana*, *Mukhamandika*, *Revati* and *ShushkaRevati* [6]. *Vagbhata* has clarified that *Grahas* an attack for three purposes *Hinsa* (to victimize) *Archana* (to get worshipped) *Rati* (to combat the sexual urges) [7].

*Kashyap Samhita* gives more importance to all *Samhitas*. The first reference is in *sutra sthana* [8] described vitiation of breast milk of wet nurse by *graha* like *Shakuni*, *Skanda*, *Shashthi* and *Putana*. However, description is incomplete due to the extinction of the manuscript. On consumption of such milk, child can suffer various features of *graha*. The second reference of *balagraha* is in *Indriyas than* describe symptoms of an affected children with various *graha* like *Skanda*, *Skandapasmara*, *Pitrisakanda*, *Pundarika*, *Revati*, *Shushkarevati*, *Shakuni*, *Mukhamandika*, *Putana* and *Naigamesa*. While third or final reference has seen in *Chikitasasthana* about treatment of child affected by *Revati*, *Putana*, *Andhaputana*, *Shitaputana*, *Kataputana*, and *Mukhamandika* *grahas*. In *kalpasthana*, *Revati* with prime importance and has been mentioned with its twenty names.

*Acharya Kashyapa* has described morphology, habitat and characters of *grahas* in *Revatikalpadhyaya* that *Grahas* are visible only to divine vision (*divyachakshu*) [9]. They are fond of *rakta*, *mamsa* and *ojas*. These are night wanderers. These dwell at water tanks

(*Shitaputana*), ruined houses (*Putana*), cow-sheds (*Mukhamandika*) and bases of the trees (*Pitrigraha*). *Jataharini* which attacks pregnant and fetus is highly contagious. These vitiate the breast milk of *dhatri* too.

In modern medical sciences, these *Grahas* are correlated with infectious agents which may be viruses, bacteria, fungi, or other microbes. Microbes can easily be infected due to a lack of hygienic environment, low immunity in children, and psychological misconduct in both children and mothers.

### 3. ETIOLOGY OF GRAHA AVESHA

The main reason for *grahaavesha* is not to follow the principles of hygiene mentioned in *swasthivritta*. Unhygienic conduct of mother or frightening of the child or where benedictory rites have not been performed the child is attacked by *graha* and the child suffers from such imposed disease [10,11].

### 4. PATHOGENESIS

A *Graha* is said to enter the body unseen like an image in a mirror-like transformation of heat, like the focusing of the rays in a lens or like the soul entering the body [12].

One related unhygienic condition, violation of rule and regulation of lifestyle of child or mothers such as feeding in an unclean and broken vessel with unhealthy condition of surrounding environment. These sound the susceptibility for the precipitation of unhygienic environment together with less immunity of the child which can easily invite the infliction of microbes. Other reason includes excessive indulgence of child's wet nurse or mother in eating, sex, sleep, exercise, harmful activities and other unreligious conducts etc.

*Vagbhata* has clarified that the colonies of *grahas* are innumerable which wander around the world in various shapes to attack the people for threefold purposes viz. victimize, to combat the sexual urges and worship [13].

### 5. PURVAROOPA

According to *vagbhataPratatrodanam* (Weeping) and *Jwara* (fever) are only two symptoms of *graha* [14].

### 6. SAMANYA LAKSHAN

When *graha* attack with an evil motto, the child becomes frightened, cries, loses consciousness,

grinds the teeth, hums, yawns, vomits froth or pus, passes loose motion with mucus and refuses to breastfeed. He emits a fishy, bed bug-like or fleshy smell, thus producing various symptoms of infection of different systems of the body [15,16].

### 7. SAMANYA CHIKITSA SUTRA

The general line of management as mentioned earlier holds good for all *graharogas* by giving priority to absolute hygiene and immunity of baby, mother/*dhatri*, a physician is essential immunity besides symptomatic management. Different herbal combinations in the ancient classics towards *Pradeha*, *Parisechana*, *Lepa*, *Abhyanga*, *Bali*, *Snana*, *Japa*, *Dhupana* and *Dharana* are mentioned with differentiation of the drugs as per varying *graharogas* [17]. *Daivavyapashraya chikitsa* includes *Mantrapryoga*, *Swasti vachana*, *Bali*, *Mangal homa* [18].

Consumption of *Ghritas* like *Astamangalaghrita*, [19] *Sarvagraharoghaghrita*, *sarivasighrita* [20] and oil preparation like *Mahamasha oil*, *Jyotishmati oil*. Symptomatic treatment according to developed signs and symptoms.

### 8. MATERIALS AND METHODS

Data and information regarding the *GrahaRoga* in children collected from different Ayurveda Samhita and related texts, modern pediatrics books, ebooks, health magazines, news papers, various research articles from different journals, websites and references from the different kinds of textbooks on pediatric practice.

### 9. SKAND GRAHA

*Skanda garah* has been explained by almost all the authors who had discussed the *graharogas* also holds another name '*kumara*' [21]. He has been described as the one which is empowered with *Taposhakti*, *Tejashwi*, *Yashshvi* and *Balaadhara*. *Skanda* is the commander-in-chief of the army of *Devataas* and pierced with his weapon through the heart of *Raakshasi Krouncha* with a single shot. He has an effulgent red body decked with garlands and red flowers. His body is smeared with red sandal paste and he receives all the energies produced by austerities. *Skanda Graha* is having *Teja*, *SwasthaShareera*, *Putra* of Mahadeva, *Agni* & *Ganga* [22].

**LASHAN ACCORDING TO DIFFERENT TEXTS**

Following Table showing the explanation of Skanda Graha in different Ayurveda text ar a glance

<b>Lakshana of skandagraha affected child</b>	<b>Charaka</b>	<b>shushruta</b>	<b>vagbhata</b>	<b>harita</b>	<b>yogratnakara</b>	<b>Bhaishajya Ratnavali</b>	<b>Madhava Nidana</b>
<i>Eknayanstravi</i> (tears from one eye)		+	+		+		+
		Swollen eyes					
<i>Siro vikshipatemruhu</i> (shaking of head)			+		+		+
<i>Hat ekpaksh</i> (loss of control over half body)			+				
<i>Stabdhang</i> (stiffness of body part)			+				
<i>Sasweda</i> (excessive swaeting)			+				
<i>Natkandhara</i> (shoulders drooling down)			+				
<i>Dantkhadi</i> (grinding of the teeth)			+		+		+
<i>Stanadweshi</i> (Aversion to stana)	+		+		+		+
<i>TrasyanaRoditiviswaram</i> (cries in abnormal voice)	+		+		+		+
<i>Vakravktro</i> ( irregular face)	+		+		+		+
<i>Vaman</i> (vomiting)							
<i>Lala</i> (profuse salivation)			+				
<i>Urdhvanirikshite</i> (gaze fixed upwards)			+		+		+
<i>Vasa asrug Gandhi</i> (smell of muscle fat and blood)		Kshtajagandhi	+		+		+
<i>Udwigna</i> (irritability)	+		+				
<i>Badhmusti</i> (clenched fist)	+		+				
<i>Badhhsakrit</i> (non elimination of faeces of only one eye)	+		+				
<i>Chalekakshi, ganda, bhru</i> (movement of one brow and cheek only)	+		+				
<i>Saraktaubhayalochana</i> (redness of both eyes)			+				

**DAIVAVYAPSHRAYA**

<b>SR NO</b>		<b>SUSHRUT SAMHITA</b>	<b>ASTANG HRIDYA</b>	<b>YOGARATNAKAR</b>
1	<i>BALI</i>	offering should be made of red garlands and banners, perfumes, various edibles, bell and a healthy cock to god.		Same as <i>sushruta</i> Mentioned
2	<i>HOMA</i>		Fire sacrifices along with chanting	
3	RITUALS	On crossroad circle should be made with new cereals -rice and barley, there in the child should be bathed and water incanted with <i>gayatri mantra</i> for three consecutive night and fire should be ignite with utterance of vyahati.		
4	FOR PHYSICIANS	protective rites for physician for the child with avert all sins and should be performed daily.		

**YUKTIVYAPASHRAYA**

<b>SR NO</b>		<b>Parisechana</b>	<b>Abhyanga</b>	<b>Sarpi pan</b>	<b>Dhupana</b>	<b>Aushadhi dharana</b>	<b>Snana</b>
1	<i>Sushrut Samhita</i>	decoction of leaves of the <i>vata</i> alleviating plants	medicated oil cooked with the root of <i>vata</i> alleviating plants along with paste of all aromatic, clear wine, and <i>kaidrya</i>	ghee cooked with <i>devdarurasna</i> , sweet plants along with milk	with <i>sarsapa</i> , slough of snake, <i>vaca</i> , <i>kakdani</i> , <i>ghrita</i> , hairs of camel, goat, sheep and cow.	<i>somavalli</i> , <i>indravalli</i> , <i>sami</i> , thorns of <i>bilva</i> and root of <i>indravarooni</i> should be strung and worn.	On cross road for three days with water incanted with <i>gayatri manta</i>
2	<i>AstangHridya</i>		<i>Puranghrta</i>	Ghee cooked with <i>Ananta</i> , <i>amrasthi</i> , <i>tagar</i> , <i>madhrgana</i> , <i>sringalvinna</i> , <i>musta</i> , decoction of dashmoola and milk	1. <i>Dashang godhup</i> 2. <i>Puti</i> , <i>dasang</i> , <i>sidharthak</i> , <i>vaca</i> , <i>dipyak</i> etc.		<i>Putikaranj</i> , <i>tvak</i> , <i>patra</i> , <i>ela</i> , <i>kshiritrees</i> , <i>tumbi</i> , <i>vishala</i> etc
3	<i>Bhaishjyarnavali</i>					<i>Anulepana</i> - <i>kalka</i> of green leaves of plant <i>saptachada</i> , <i>nisha</i> , <i>kustha</i> , <i>chandana</i> .	<i>Mura</i> , <i>mansi</i> , <i>vaca</i> , <i>kustha</i> , <i>haileya</i> , <i>rajnidwaya</i> , <i>shati</i> , <i>champak</i> , <i>musta</i>
4	<i>Yogratnakar</i>					<i>Somvalli</i> , <i>indravrisha</i> , <i>brihati</i> , <i>bilva</i> , <i>shami</i> etc.	On cross road for three days with water incanted with <i>gayatri manta</i>

**Lakshana** resemble of **balagraha** and quadriplegic cerebral palsy

<b>Lakshana of skandagraha affected child</b>	<b>Symptoms of Quadriplegic Cerebral palsy</b>
<i>Eknayanstravi</i> (tears from one eye)	Poor head control
<i>Siro vikshipatemruhu</i> (shaking of head)	Impaired all extremities
<i>Hat ekpaksh</i> (loss of control over half body)	Increased muscle tone & spasticity
<i>Stabdhang</i> (stiffness of body part)	Neck stiffness
<i>Sasweda</i> (excessive sweating)	Impaired all extremities
<i>Natkandhara</i> (shoulders drooping down)	Grinding of teeth
<i>Dantkhadi</i> (grinding of the teeth)	Difficulty in feeding & tongue thrust
<i>Stanadweshi</i> (Aversion to breastmilk)	Speech affected due to oropharyngeal muscle involvement
<i>TrasyanaRoditiviswaram</i> (cries in abnormal voice)	Due to muscle tone and spasticity
<i>Vakravktro</i> (irregular face)	
<i>Vaman</i> (vomiting)	
<i>Lala</i> (profuse salivation)	Prominent drooling of saliva
<i>Urdhvanirikshite</i> (gaze fixed upwards)	Up rolling of eye
<i>Vasa asrug Gandhi</i> (smell of muscle fat and blood)	
<i>Udwigna</i> (irritability)	Irritability
<i>Badhhmusti</i> (clenched fist)	Clenched fist
<i>Badhhsakrit</i> (non elimination of faeces of only one eye)	
<i>Chalekakshi, ganda, bhru</i> (movement of one brow and cheek only)	
<i>Saraktaubhayalochana</i> (redness of both eyes)	

- **CHIKTSA** (TREATMENT)

As said before in general line of treatment absolute hygiene and immunity of the child is most important in *skandagraha* affiliated child. It can be divided in *daivyapashraya* and *yuktivyapasrya chikitsa* mentioned below.

- **SADHYASADYATVA**

If a child loses movement of eyes, develops an aversion to the breast, repeated attacks of unconsciousness throw-out the day and at night is incurable kind of possession as well as manifested of all the symptoms of affrication by evil spirits [23]. A child who is suffering from faking of the hair, hateredness of eatables, feeble voice, discoloration, crying, smell of vultures coming out of the body, round nodules appearing on the stomach, elimination of faces, depression in the middle of the tongue and the palate becoming black [24].

## 10. QUADRIPLAGIC CEREBRAL PALSY

Cerebral palsy [25] (CP) is a term used to describe a group of motor syndromes resulting from disorders of early brain development. It is caused by a broad group of developmental, genetic, metabolic, ischemic, infectious and other acquired aetiologies that produce a common group of neurologic phenotypes. Because of the

substantial motor impairment of both extremities and the strong connection with mental retardation and seizures, spastic quadriplegia is the most severe form of CP. As a result of supranuclear bulbar palsies, swallowing difficulties are common, leading to aspiration pneumonia. Athetosis is common in children with spastic quadriparesis, and they may be classed as having mixed CP. Affected children are typically hypotonic, with poor head control and significant head lag, and over time develop greater variable tone, rigidity, and dystonia. Feeding may be challenging, and drooling and tongue thrust may be noticeable. Because the oropharyngeal muscle is implicated, speech is usually impacted. Speech may be nonexistent or slurred, and voice modulation may be poor.

## 11. DISCUSSION

*Graharoga* is well mentioned by different acharyas in their *samhitas*. *Acharya charak*, *Sushruta*, *Vagbhatta*, *Harita*, describes *graha* with its *Purvarupa*, *samanyalakshan*, *samnyachikitsa*. *Acharya Sushruta* and *Acharya Vagbhatt* both described well *Skanda Graha* based on their etiology factors, treatment and preventions than other *acharyas*. Their treatment protocol can be preventive prospectus [26] and *rasayanabrihanchikitsa*. According to *Ayurveda*, children can suffer from *Graharogas* due to

unhygienic conditions. So, maintain hygiene of mother/*dhatri* and child during the antenatal, natal, postnatal period is main preventive aspect. *Dhoopan karma* can be used in *Kumaragara* [27] or in labour room to prevent bacterias which lead to infections [28]. As cerebral palsy has symptoms like poor head control, impaired all extremities, increased muscle tone and spasticity etc which has resemblance with the symptoms of *sakandagraha*. It can be treated with *Daivavyapashraya* [29] and *Yuktivyapashrya chikitsa* mentioned by acharyas. In *Daivavyapashrya chikitsa*, main role is purity of mana which give happiness and stress-free life by various *Japa, Bali, Homa, Rakshavidhana* [30]. In all *grahas*, there are features of *vatapredominancy (prakopa)* that's why treatment protocol should be *vaataghna* [31] with various medicated ghee for *abhyanga* and *parisechanatreatments* reduces increased muscle tone, improves muscle bulk and power in CP children [32].

## 12. CONCLUSION

The study highlights the efficacy of "Ayurveda" which is an ancient tradition, used in some parts of India. This ancient concept should be carefully evaluated in the light of modern medical science and can be utilized partially if found suitable.

## CONSENT

It is not applicable.

## ETHICAL APPROVAL

It is not applicable.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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