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RESEARCH ARTICLE

GRAHA ROGA IN PEDIATRIC ADVANCEMENT W.S.R. TO SKANDA GRAHA

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ABSTRACT

Graha is a broad spectrum term and collection of symptoms defined in Ayurveda classics, wherein the aetiology is unknown. References regarding *Graha Rogas* are available in the Vedas, word *Grahi* is mentioned in *Atarva veda*. Mahabharata first time explained morphology of *Graha Rogas*, whereas Ayurveda texts explain the clinical features along with management, though the number of *Balagraha* varies from text to text. The advancement of technology and diagnostics in the subject of paediatrics in the recent years have made more clear understanding of these conditions, still many challenging disorders are present whose causes are unknown, termed as of idiopathic origin. One of the major management approach is *Daivavyapashraya Chikitsa* for disorders of unknown etiological factors especially *Graha Rogas*. One such specific *Graha Roga* is *Skanda* among the *Bala Grahas*, whose detailed description is available in all the major texts. The clinical features of *Skanda Graha* closely resembles with Polio virus infection such as painful joints, rigid muscles, stiffness of the body as a whole and later as sequelae develops. India, with aggressive eradication drives, made the country polio free in the year 2013. Ayurvedic management of the sequelae condition has proven benefits and the details and concept regarding this will be discussed and presented in full paper.

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INTRODUCTION

Graha is a broad spectrum term and collection of symptoms defined in Ayurveda classics. The etymology of word *Graha* is to seize or grasp (*Grahi*). It has been used in Ayurvedic classics in cases where etiology is unknown and can be seen only by *sukshma drishti* (micro vision). *Graha Rogas* are separate entities from other general disorders. Their cause, mode of onset, symptoms, severity and management are totally different from others disorders which we come across in day to day practice. It constitute group of potent Paediatric disorders which are rapidly progressive, difficult to diagnose and carry high mortality and morbidity rates. The advancement of technology and diagnostics in the subject of paediatrics in the recent years have made more clear understanding of these conditions, still many challenging disorders are present whose causes are unknown, termed as of idiopathic origin. In Ayurveda such entities are attributed to *Diavika shakti*, *poorvajanamakrita papkarma* etc. The *Graha* is said to afflict the child when mother in puerperium resorts to *mithyaahara* and eating mallika fish (Sastry forwarded, 2015). References regarding *Graha Rogas* are available in Vedas but they do not

directly mentioned any *Balagraha* except Acharya Sayana described the term *Rakashasa* (demons) which destroys the foetus and neonate (Vishwa Bandhu, 1961). Mahabharata first time explained the morphological features of *Graha Roga*. Kaushik Sutra and Skanda Bhaishajya also described about *Graha Roga*. Agnipurana gives his significant contribution and explains 38 *Grahas* (Shrinidhi, 2009). According to mythological concept these *Grahas* are produced by *Ishwara*, the supreme power which governs and control this whole world. Lord Shiva appointed 5 male and 7 female *Grahas* to care and protection his son Kartikeya (Vagbhata, 2007). Whatever may be the cause *Grahas* are produced with good intension of protection of child from enemies. Acharya Kashyapa has described morphology, habitat and characters of *Grahas* in *Reveti kalpadhyaya* as (Kasyapa samhita):

- *Grahas* are visible only by *sukshma drishti* (micro vision).
- Their leaders and servants constituting colonies are innumerable.
- These are night wanderers.
- They grow in water tanks (*Shitaputana*), ruined houses (*Putana*), cow sheds (*Mukhamandika*) and bases of the tree (*Pitrigraha*).
- These vitiate the breast milk of *Dhatri* also.

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- Sushruta cautioned that wounds are to be protected from *Grahas* and a neonate shall be nursed like a wounded person.

As per modern view all above facts confirm the microscopic, unicellular nature of *Graha* which can be visualised by special aids like microscope. They can change their shape and size when enters in different phases of their life cycles like egg, larva, spore etc. Microorganisms although cause disease, but they live back certain immunity inside the body against them by stimulating the body immune system. Classification of *Grahas* as *Stri* and *Purusha* may be indicating their pathogenic nature, severity and potency as per modern view of gram positive (+) and gram negative (-) organisms. Vagbhata has clarified that colonies of *Grahas* are innumerable and attack peoples for three purposes:

- *Hinsa* (to victimise)
- *Archana* (to get worshipped)
- *Rati* (to combat the sexual urges) (Vagbhata, 2007).

If we correlate it with modern point of view the purpose is

- Pathogenic nature.
- Parasitic and opportunistic nature that is microbes enter in the body to complete their life cycle.
- Non pathogenic and may contribute for anabolism that is microbes using host body to get nutrition.

Causes for attack of *Grahas* (Susruta samhita, 2012):

- Due to faulty conduct of Mata / *Dhatri*.
- Negligence of hygiene.
- Character devoid of believe in worship.
- Don't follow religion customs.
- Fluctuation in behaviour like excessive happiness & sorrow.

If above all factors are seen in modern prospective view faulty diet habits of mother, depression and any mood disorder affects child psychologically where as unhygienic environment, less immunity of child, affects child by inviting attacks of pathogenic micro organism.

Pathogenesis

Acharya Charaka imagined that *Grahas* enters the body by invisible ways similar to as that of formation of mirror image, heat generation, and refraction of rays in a lens or soul enters in the body at the time of new birth.⁸ In this way *Grahas* enters the body and vitiates breast milk causing several disease and discomfort to the child. Sushruta illustrate number of different causative factors into two main categories (Susruta samhita, 2012). One relayed to unhygienic condition in which he told about violation of rule and regulation of lifestyle of child or mothers such as feeding in unclean and broken vessels with unhealthy condition of surrounding environment. Other reason includes excessive indulgence of child's wet nurse or mother in eating, sex, sleep, exercise, harmful activities and other unreligious conduct etc.

Number of *Grahas* according to different Authors

Kasyapa mentioned 20 synonyms of the *Revati Graha*. Acharya Charak didn't mentioned any numbering and called

them *asankhya* where as Bhavprakasha and Susruta described 9 *Grahas* to which Vagbhata and Yogratnakara added 3 more *Grahas* and total 12 *Grahas* out of which 5 are said to be male *Grahas* and 7 are female *Grahas*. Harit described about only 8 *Grahas*.

Clinical features of *Grahaavesha* (Vagbhata, 2007)

▪ Prodromal Symptoms:

Fever and excessive crying are two prodromal symptoms which are defined in various textbooks of ayurveda.

▪ General Symptoms:

- Producing extraordinary or supernatural power in speech, activities, strength etc. By seeking sexual passion and worship.
- In other hand *Grahas* with evil desire produces the following symptoms:

Fainting with upward eye direction, worthy and foamy salivation, teeth and lip biting, eyebrows movements, scratching own and mother body with nails, altered voice and fear crying, insomnia, vomiting, yawning, apathy, refuse to take breast feeding etc.

General management of *Grahas* (Chakradutt):

- Maintenance of Personal hygiene with oleation, bath, fumigation, isolation etc.
- Health of *dhatrī* and attendents should be maintained.
- Personal hygiene of the attending physician is essential.
- *Japa, bali, home* etc. Karmas should be done.
- Consumption of *Ghritas* like *Astamangala ghrita*, *Balagrahanasaka ghrita*, *Balahitkari ghrita*.
- Consumption of oil preparation like *Mahamasha* oil, *Jyotishmati* oil.
- Symptomatic treatment according to developed sign and symptoms.

Aims and Objectives

- To review of *Graha Rogas* with available literature.
- To evaluate the etiopathology of *Graha Rogas*.
- To discuss the scientific background behind *Graha Rogas* in present era.

MATERIALS AND METHODS

Data and information regarding the *Graha Roga* in children collected from different Ayurveda Samhita and related texts, e-books, health magazines, news paper, various research articles from different journals, websites and references from the different kinds of text books on pediatric practice.

Skanda graham

Skanda is the commander-in-chief of 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*, *Swastha*

Shareera, Putra of Mahadeva, Agni & Ganga may be suggesting a pathogen which is very potent having complete cell structures, survive in aquatic medium and resistant to heat and cold (Susruta samhita, 2012).

Symptoms of Attack (Vaghata's astanga hrdayam, 1997)

- Watering of one eye only, unsteady head, loss of control over half the body, stiffness of body parts, sweating, drooping down of shoulders, teeth grinding, and refusal of breastfeeding, fearful.
- Abnormal Cries, asymmetrical face, vomiting, profuse salivation, gaze fixed upwards, body emits the smell of muscle fat and blood, irritable, clenching of palm, non-laminations of faeces, movement one eyebrow, eye and cheek having, redness of eyes.

In modern medical sciences these *Grahas* are correlated with the infectious agents which may be viruses, bacteria, fungi or other microbes. Due to negligence of hygienic environment, less immunity of children's and psychological misconduct of children as well as mother they can easily invite the infliction of microbes. So *Skanda Graha* correlated with infection of polio virus where as *Skanda Graha Janya Roga* compared with poliomyelitis.¹⁴ The features of Poliomyelitis can be compared with Guillain Barre Syndrome, Cavernous Sinus Thrombosis.

Poliomyelitis

Poliomyelitis is a highly crippling and often fatal disease caused by any of the three serotypes of polio virus type 1, 2, and 3 mainly affect children under the age of 5. It is a highly communicable disease for which human is the only reservoir. It multiplies in the intestine and spread via faecal-oral route. The average incubation period is 7-10 days. The maximum excretion of virus occurs just before the onset of paralysis and during the first 2 week after the onset of paralysis (IAP textbook of paediatrics, 2016).

Pathogenesis & Pathology (Ghai essential paediatrics, 2005):

The virus of poliomyelitis multiplies in the intestine and then travels to the regional lymph nodes and reticuloendothelial structures. Viremia may occur as a result of these specific types of antibodies are produced in the blood and gut. If the immune system is adequate and fast, the virus is neutralized and the illness is aborted. If the conditions for the spread of virus are present, the virus involves the nervous system, reaching there either along the nerve pathway or through the blood stream.

Pathology

Polio virus selectively damages motor and autonomic nervous system. Most commonly affected areas are the anterior horns of the spinal cord, vestibular and cranial nerve nuclei, vital centres in the medulla, nuclei in the roof of the cerebellum. The neurological damage may be mild and transient or severe or extensive.

Clinical manifestation (IAP textbook of paediatrics, 2016): In 90-95% of infected individuals, polio virus infection is

unapparent. In the remaining 5-10% of individuals infected by polio virus, one of three syndromes may occur:

- **Abortive polio:** occurs in 4-8% of infections. Characterized by Low grade fever, sore throat, vomiting, abdominal pain, loss of appetite, malaise. The painful joints, tender and rigid muscles giving rise to the stiffness of the body. Recovery is rapid and no paralysis occurs.
- **Nonparalytic polio:** occurs in 1-2% of infections. Characterized by headache, neck, back and leg stiffness. Presentation resembles other causes of aseptic meningitis and recovers within 2-10 days.
- **Paralytic polio:** occurs in .5-1% of infections. Symptoms often occur in two phases, minor and major. The minor phase consists of symptoms similar to those of Abortive polio. The major phase of illness begins with muscle pain, spasm and the fever. This is followed by rapid onset of flaccid paralysis that is usually complete within 72 hours.

There are 3 types of Paralytic polio

- **Spinal paralytic poliomyelitis:** Most common, seen in approximately 80% of paralytic cases. It results from a lower motor neuron lesion of the anterior horn of the spinal cord and affects the muscles of the legs, arms or trunk. The affected muscles are flaccid and reflexes are diminished. No sensory involvement. Paralysis is often asymmetrical, affecting legs more than arms.
- **Bulbar polio:** accounts up to 2% of paralytic cases results from a cranial nerve lesion, results in respiratory insufficiency and difficulty in swallowing, nasal regurgitation etc.
- **Bulbospinal polio:** accounts for 20% of cases which is a combination of both spinal and bulbar component.

Clinical features of each entities are given below

a) Poliomyelitis (Chavali's principles, 2015)

- Low grade fever, sore throat, vomiting, abdominal pain, loss of appetite, malaise.
- The painful joints, tender and rigid muscles giving rise to the stiffness of the body.
- The drooping of head when shoulders are elevated and the absence of nuchal rigidity in prone position but elicited in conventional supine position gives an appearance of stooped neck.
- Paralysis of muscles of trunk and extremities giving rise to monoplegia or hemiplegia indicate involvement of spine.
- Involvement of cranial nerve seen in bulbar form of polio infection.
- This polio infection either kills the child or leaves with a disability.

Comparison of symptoms of *Skanda Graha* with Polio (Chavali's principles, 2015)

- A. *Stabdhangha* that is stiffness of body as a whole with fists and sweating.

- B. *Natandhra* that is the drooping of head when shoulders are elevated and the absence of nuchal rigidity in prone position but elicited in conventional supine position gives an appearance of stooped neck.
- C. *Trasyati, Udvigna, Dantankhadi, Rodatia* and *Viswara* that is excitability with frightened look, teeth grinding, anxious face and cry with altered voice.
- D. *Urdhwa nirikshati, Shiro Vikshiptae* that is conjugate deviation of eyes with nodding of head and edematous eyelids.
- E. *Hatakepaksha* that is monoplegia or hemiplegia indicating involvement of spine usually asymmetrical.
- F. *Chalitaekakashigandabhru vakravakro, Eknyanstravi, Sunakshi* that is facial palsy with bulbar involvement. Deviation of angle of mouth with dribbling of saliva. Tears flow from paralysed eye due to absence of blinking.
- G. *Vaiklya Marnam va Bhavet Dhruvam* that is either kills the child or leaves with a disability (Susruta samhita, 2012).

b) Guillian Barre Syndrome (www.mayoclinic.org, 2016)

- Prickling, “pins and needles” sensations in fingers, toes, ankles or wrist.
- Weakness in legs that’s spreads to upper body.
- Inability to walk or climb stairs.
- Difficulty with eye or facial movements, including speaking, chewing or swallowing
- Severe pain that may feel achy or cramp like and may be worse at night.
- Difficulty with bladder control or bowel function.
- Rapid heart rate, alteration in blood pressure.
- Difficulty in breathing.

c) Cavernous Sinus Thrombosis (www.m.webmd.com>a-to-z, 2016)

- Severe headache.
- Swelling, redness, or irritation around one or both eyes.
- Drooping of eyelids.
- Inability to move the eye.
- Pain or numbness around the face
- Fatigue.

DISCUSSION

Graha Rogas are detailed in Samhitas. *Rogas* are separate entities from other general disorders. Their etiopathogenesis, signs and symptoms, severity and management are totally different from other pediatric disorders. Signs and symptoms of such disorders are similar of *Graha Rogas*. These are invisible and correlated microbes. Shusutra and Bhavprakasha has given nine *Grahas*, named as *Skanda, Skandapsmara, Shakuni, Putna, Revati, Andhaputna, Sheetputna, Mukhamandika* and *Naigmesha*. Vagbhatta and Yogaratnakar has added 3 more *Grahas* (*Swagraha, Pitrigraha* and *Shushka Revati*), thus total number become twelve, male *Grahas* are five and female are seven. Harit described about only 8 *Grahas*. Kasyapa mentioned 20 synonyms of the *Revati Graha*. *Grahas* attack peoples for three purpose: *Hinsa* (to victimise), *Archana* (to get worshipped) and *Rati* (to combat the sexual urges). Kashyap said that they can seen by devine

eyes. Thus it is evident that this *Grahas* may be micro-organism. The management of *Graha Roga* is mainly *Daivavyapashrya Chikitsa*. *Dhupana, Parisheka, Bali, Agni pooja, home, Snana* with medicated drugs are included in it. The unhygienic condition of children is responsible for *Graha Rogas*. So all treatment protocols follow to remove or destroy the micro-organism. Hence hygiene in terms of *shuchi* and *shuddhi* (asepsis and antiseptic) plays a major role both to prevent and cure *Graha Rogas*. Lord Shiva and Parvati to protect his child Kartikeya from various enemies, produced *Skanda Graha*. Maximum Clinical features of *Skanda Graha* are similar to Poliomyelitis. Thus resembles to infection with virus.

Conclusion

Graha Rogas are compared with various microbial infections. Clinical features of *Skanda Graha* are similar to Poliomyelitis, which can be treated with *Daivvyapashrya Chikitsa* according to Ayurveda with therapeutic approach.

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