

A STUDY ON HANDIGODU SYNDROME (ANUKTA VYADHI) – UNDERSTANDING THROUGH AYURVEDA MULA SIDDHANTA

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ABSTRACT

Handigodu Syndrome is prevalent in several villages of Shimoga and Chikkamangalore district in the state of Karnataka, southern India¹. Disease was seen first in 1975. It is listed in the International classification of Skeletal Dysplasia's and ICMR study has shown that Handigodu Syndrome is a Spondylo epi (meta) physeal dysplasia, inherited as an autosomal dominant trait. The proposition that environment factors, consanguinity and nutritional deficiency may play some role in Handigodu Syndrome appears to be speculative in nature. Handigodu Syndrome is a new disease entity for the Ayurveda, thus it is called as "Anukta Vyadhi" in Ayurveda. The term Anukta is used in the sense of unuttered, unsaid and unheard of². But we can understand it by careful scrutiny of clinical presentation and investigation described in available literature.

Keywords: Handigodu, Spondylo epi, "Anukta Vyadhi etc.,

INTRODUCTION

Handigodu Syndrome was reported in 1975, predominantly in villages of Shimoga & Chikkamangalore Districts. As disease first seen in Handigodu village, it is named as Handigodu Syndrome. The clinical presentation of patients has been identified in to three sub types such as 1) Arthritic type 2) Dysplastic type 3) Dwarf type³. Handigodu Syndrome is a disorder of the osteoarticular system and is an inherited degenerative osteoarthropathy. In this progressive skeletal system disorder, affected individuals are presented with 1) Severe joint and hip pain 2) Deformity in bones particularly in the legs and back 3) Inability to move around 4) Lack of normal growth is noticeable from early childhood. Even though identified as an orthopedic problem

there was no known classification and treatment for this Syndrome in modern medicine. Some reference from our classics claims that all pathological conditions cannot be labeled⁴. The reason is the same vitiated dosha causes various disorders according to variation in etiology and location. So it can be understood by Tridosha Vaishamya, Dhatu Dhusti etc. The diagnosis according to Ayurveda is based on Roga prakruti, adhisthana, samutthana and then given the treatment.

HISTORY: Shri H.M.Chandrashekhar, social worker of Handigodu has devoted himself to the study, reporting and relief activities to the affected people since 1975. Because of his untiring efforts the disease was taken up seriously by the Govt. of Karnataka

and the ICMR. The first expert team which went into the study of the disease was led by Dr. K.S.Mani Neurologist from National Institute of Mental Health and Neuro Sciences (NIMHANS) Bangalore. The team attributed the cause of pain to bone and joint disorders. The study of National Institute of Nutrition, Hyderabad reported that it was non-contagious, non-infectious and that it was not due to inadequacy of nutrition. The possibility of pesticide affected crab meat causing such problem was ruled out. The study of ICMR was conducted by Dr.S.S.Agarwal, Dr.S.P.Teotia, Dr.Taranath Shetty and others. Most of the studies went into the nature and cause of the problem, which were unclear; therefore, they could not address the solution/treatment and prevention. Shri. Chandrashekhar who has knowledge of ethno-medicine and who assisted the experts in all the above mentioned scientific studies has maintained pedigree charts, tracing the family history of majority of the affected persons. According to him the spell of severe cold winds in 1973-76 could have aggravated the expression of this problem, in view of living conditions and environment of the concerned villages. He has also hypothesized that could be a type of “*Shitanga vayu sannii*” which is not unknown to Ayurveda vaidyas. However, this hypothesis needs further investigations. Shri. G.N.Hegde of Atomic Minerals Division, Bangalore visited Handigodu and carried out a study to ascertain the level of natural radiation to rule out the possibility of the deformities being influenced by radiation, concluded as since the radiation level is far below than the average levels, the possibility of radiation being the cause of deformities is ruled out.

REVIEW: “*The Greatest challenge to any thinker is stating the problem in a way that will allow the solution*”. Bertrand Russell

According to Acharya Charaka, it is not necessary that one should know each and every disease by its name⁵. As per the reference from Ch. Su 18/44 all the pathological condition cannot be labeled but be understood by Tridosha Vaishmya, Dhatu Dushti. Handigodu Syndrome is the inherited an autosomal dominant trait, requiring only two inherited genes to be defective for disease onset. It is more seen in the southern part of India, mainly Shimoga and Chikkamangalore district of Karnataka. Three subtypes of this disease 1) Arthritic 2) Dysplastic and 3) Dwarf types segregate in the same families implies often seen in the same family. Lack of normal growth is noticeable from early childhood, so there is need to develop a systematic approach for proper analysis of pathology of this disease. The methodology of understanding an unknown disease has been described in Charaka Samhita based on Aptopadesha Pramana. The key points like Prakopanam, Yoni, Uthana, Atmana, Adhithana, Vedanam, Samsthana, Sabda, Sparsa, Rupa, Rasa, Gandha, Upadrava, Vridhi, Sthana, Kshaya, Udarka, Nama, Yoga and Pratikartha Pravritti and Nivritti⁶ should be considered to form a concrete base to formulate suitable regimen for this disease. The composite picture about this disease can be drawn considering above mentioned points, in the light of knowledge available in the modern medical discipline.

1. **PRAKOPANAM:** The word Prakopanam implies the Hetu for the vitiation of Doshas. The factors by which the balanced state of Doshas, Dhatus,

and Malas is disturbed should be considered under this heading. Thus, here in the case of Handigodu Syndrome the Upatapti⁷ of Beejabhagavyava is the main cause and consequent unbalanced state of basic trinity of Dosha, Dhatu, and Mala. Genetical basis of various diseases were known to our ancient Acharyas, including their cause (Hetu) that is Upatapti of Beeja, Beejabhaga, Beejabhagavyava. They also described possible cause of mutation in the form of Matru-Pitru Apachar, Daiva parushakar, Purvkrita Ashubha Karma and Prakopa of Vatadi Dosha.

2. **YONIM:** Yoni denotes moolabhoota karana of a disease. The Hetu of Handigodu Syndrome is Beeja dusti. The factors that responsible for the production abnormalities in fetus are described in classics. According to Acharya Charaka defect in Beeja, Atmakarma, Ashaya, Kaladosha, Matruja Aharavihara responsible for vikriti in Santana⁸.
3. **UTTHANAM:** The possible mutation mechanism may be as, due to Anuchita Ahara – Vihara of the parents Doshas predominantly Vata and Pitta vitiated and circulating through the body and at the cellular level mutate the genetic code of cell. It might results in altered functioning of the Dhatu. It may also result in to its destruction or abnormality, and leads to changes in the Prakriti of Dhatu which results in Dhatu Vikriti. Prakriti of each Dhatu is maintained by Kapha Dosha. Changes in Prakriti denote Sleshma Kshaya tending to Dhatu Vaipareetya.
4. **ATMANAM:** Pratyatmalinga of disease is known as its Swaroopa⁹. The main

symptom of Handigodu Syndrome is Sandhi shool. Also seen the following symptoms ; Sandhi shotha, Sparshasahatva, Sthabdata, Sandhigraha, Sashabda sandhi, Parva bheda, Parva shool, Aruchi, Angamarda and Nidra viparyaya.

5. **ADHISTHANAM :** In case of Handigodu Syndrome the vitiated Doshas get lodged at Shleshma Sthana in general and Sandhi in particular producing symptoms like Sandhishoola, Sandhishotha Sandhigraha etc. mainly in Hip and Knee joints, hence Adhistanana of disease is Asthisandhi. The Manasa is also involved as there is Manokshobha, because of unbearable pain and they cannot enjoy the normal life like others.
6. **VEDANAM:** (SHABDA, SPARSA, RUPA, RASA, GANDHA): The word “Vedanam” denotes knowledge. Here the word can be understood in the sense of, clinical features. The diagnostic methods in Ayurveda are by means of Sabda, Sparsa, Rupa, Rasa, Gandha i.e. Prathyaksha Pariksha and Anumana Pariksha. By clinical presentations and X-ray¹⁰ pictures we can identify the three types i.e. Arthritic, Dysplastic and Dwarf type in Handigodu Syndrome.
7. **SAMSTHANAM:** Samsthan¹¹ refers to the clinical manifestations of the disease. Handigodu joint disease is non-infectious and non-contagious; this syndrome can affect people of all age groups. The initial symptom of the disease is severe pain in the joints of the hips and the knees. In some, the syndrome may be present from birth itself while others may develop the syndrome

- as they grow. The disease can be mild, moderate or severe.
8. **UPADRAVAM:** Upadrava are complications which manifests as a result of improper treatment of a disease, they may be mild or severe or an independent disease itself. Sankocha and Angavaikalya are main.
 9. **VRIDDHI, STHANA, KSHAYA :** This implies for the aggravating, static and reliving factors of disease. In short it implies for Upashya and Anupashya. The factors which results in depletion of Dhatus and deterioration of Bala (Immunity) will enhance the disease progression.
 10. **UDARKAM:** Udarkam means the outcome of disease process. As mentioned by Acharya Charaka¹², the few factors determine the absolute incurability of the disease. This Syndrome is Asadhya as it is caused by Tridosha, affected deep seated Dhatu, involved Bahu Dhatu dusti, Affected to Sandhi and affects the patient continuously for long time.
 11. **NAMAM:** In extant Samhitas our ancient Acharyas named the diseases according to its Pratyatmalinga (Rupa), involved Dosha and Dushyas (Samprapti Ghatakas), Adhithana of the disease.
 12. **YOGAM:** Saamadosa should be targeted and treated. First start with Deepan and Pachana, then treat Asthidhatugata vikruti, start Vedana sthapaka and Shothagna yogas. Well planned panchakarma procedure can be adopted. Rasayanachikitsa is aimed as a preventive as well as curative.
 13. **PRATIKARA:** The disease Handigodu Syndrome is Asadhya in nature, so in this case preventive aspect has much more importance in the management of this scourge. As this disease is autosomal dominant trait in nature and tends to occur in particular communities residing in the particular geographical region its prevention through genetic counseling is possible.
 14. **NIVRUTTI:** Avoid Vatakara Ahara-vihara, if saamadoshjanya sandhishool avoid Abhyanga.
 15. **PRAVRUTTI:** Advice to eat nutritious food, follow Dinacharya and Ritucharya explained in Samhita's. Complete Swasthavrit plan along with mental health is necessary in Handigodu Syndrome victims. Challenging disorder for the scientist. The nature of the disease is genetic regarding this many researches were done in the modern science but in Ayurveda has no answer for this disease. To add the new concept of disease Handigodu Syndrome (**Anukta Vyadhi in Ayurveda**), a effort has been made in this study. To understand the disease, the concept of Beeja, Beejabhaga and Beejabhagavayava should be clear because of its genetic nature. Shukra and Shonita are an ultimate outcome of Ahara. (Ch.Su.24/31&Ch.Sha.2/4). If any disequilibrium in diet, the formed seed also will be defective, produce genetic susceptibility for disease in the embryo (Garbha). Every structure and also the function of human body are fully represented in a seed. So, whichever part of seed is deformed, the same defect will be transferred to embryo. (Ch.Sha.3/17). Methodology of understanding a disease process and designing the treatment has been nicely explained in Charaka Samhita. On the basis of Acharya Charaka's

dictum, present study has been tried to reveal the etiopathogenesis of Handigodu Syndrome.

CONCLUSION

The present research work was aimed to study the disease Handigodu Syndrome (Anukta Vyadhi in Ayurveda). From the detailed description of its Etiopathogenesis, observation and discussion the following conclusion are evolved.

- It is the new approach in the Ayurvedic research field.
- Its Etiopathogenesis can be interpreting by the application of Charaka methodology given in the Charaka Vimana Sthana 4.
- Concept of genetics in Ayurveda can be understood.
- Concept of 'Atulyagotriya Vivaha' in Ayurveda can be helpful for the prevention of this disease.
- According to Ayurvedic Parlance Handigodu Syndrome may be comes, under Kulaja Vikara / Anuvanshika Vikara / Beejadhustijanya Vikara.
- As it is Asadya Vyadhi, we can help by Ayurvedic formulations which may act as supportive and provide better quality of life to the diseased.

REFERENCES

1. Bhat RV, Krishnamachari KVAR. Endemic familial arthritis of Malnad. Indian J Med Res. 1977; 66:777–786.
2. Sir Monier Monier-Willims & other Scholars; ASanskrit-English Dictionary, Etymology & Philology arranged With special refrence to cognate Indo-European language;searchable Digital

Fascimile; The Bhaktivedanta Book Trust International 2002 Page no.31.

3. Agarwal SS, Phadke SR, Fredlund V, Viljoen D, Beighton P. Mseleni and Handigodu Familial Osteoarthropathies, Syndromic Identity? Am.J.Med.Genetics.1997; 72:435–439.
4. Cha.Su.18/ 44 Charaka Samhita by Agnivesha, revised by Charaka and Dridbala, Commented by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya Chaukhambha Sanskrita Samnsthana, Varanasi, reprint 2004 page no.108.
5. Cha.Su.18/ 44 Charaka Samhita by Agnivesha, revised by Charaka and Dridbala, Commented by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya Chaukhambha Sanskrita Samnsthana, Varanasi, reprint 2004 page no.108.
6. Cha.Chi 15/28; Charaka Samhita by Agnivesha, revised by Charaka and Dridbala, Commented by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya Chaukhambha Sanskrita Samnsthana, Varanasi, reprint 2004 page no. 515.
7. Cha. Sha. 3/ 17 Charaka Samhita by Agnivesha, revised by Charaka and Dridbala, Commented by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya Chaukhambha Sanskrita Samnsthana, Varanasi, reprint 2004,page no. 315.
8. Cha. Sha. 2/29 Charaka Samhita by Agnivesha, revised by Charaka and Dridbala, Commented by Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya Chaukhambha Sanskrita

- Samnsthana, Varanasi, reprint 2004 ;
page no305.
9. A.S.Su.22/ 9 Astanga Sangraha by Vrud
Vagbhatacharya, Commented by Indu,
edited by Kaviraj Atridev Gupta Chow-
kamba Krishnadas Academy ,Varanasi;
reprint 2005;page173.
10. Agarwal SS, Phadke SR, Phadke RV,
Das SK, Singh GK, Sharma JP, Teotia
SPS, Saxena BN. Handigodu disease: A
radiological study. Skeletal Radi-
ol. 1994; 23:611–619.
11. A.Hr 1/5; Shrimadvagbhata virachita
Astanga Hridayam, Commented by
Arunadatta & Hemadri, edited by Pandit
Hari Sadashiv Shastri Paradkar,
Choukamba Surabharat Prakashan, Va-
ranasi, reprint 2007;Page no 441.
12. Cha.Su 10/20; Charaka Samhita by Ag-
nivesha, revised by Charaka and Drid-
bala, Commented by Chakrapanidatta,
edited by Vaidya Yadavaji Trikamji
Acharya Chaukhambha Sanskrita
Samnsthana, Varanasi, reprint 2004 page
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