



AYURVEDA AND MODERN MANAGEMENT OF *BHAGNA* W.S.R. TO FRACTURE AND DISLOCATION

Dr. Ranjit Singh*¹ and Dr Upasana Priya²

¹Associate Professor, *Shalya Tantra* Department, Kunwar Shekhar Vijendra Ayurved Medical College and Research Centre, Shobhit University, Gangoh, Saharanpur (UP) India.

²Ex. Associate Professor, *Rachna Sharia* Department, Kunwar Shekhar Vijendra Ayurved Medical College and Research Centre, Gangoh, Shobhit University (UP) India.

***Corresponding Author: Dr. Ranjit Singh**

Associate Professor, *Shalya Tantra* Department, Kunwar Shekhar Vijendra Ayurved Medical College and Research Centre, Shobhit University, Gangoh, Saharanpur (UP) India.

Article Received on 11/10/2020

Article Revised on 01/11/2020

Article Accepted on 22/11/2020

ABSTRACT

The management of fractures and dislocation in Ayurveda described as *Bhagna Chikitsa* under the surgical and para-surgical modalities of Ayurveda. *Acharya Sushruta* elaborated *Bhagna* based on types of injury, displacement and shape of fracture, etc. Term *Kand bhagna* suggested for bone fracture while dislocation termed as *Sandhimoksha* in Ayurveda. Ayurveda not only described various types of fractures and dislocations under the heading of *Bhagna* but it also explained many therapeutic approaches for the management of such types of conditions. The classical approaches like; *Kushabandh*, *Chakrayoga*, *Taila Droni* and *Alepa*, etc. are useful in specific conditions. However *Bhagna Sthapana*, *Bandhana* and *Sukhchestaprasara* are mainly employed along with surgical and para-surgical approaches for the management of fractures and dislocations. Various medicines also recommended for symptomatic relief in both stream Ayurveda as well as in modern medical science. Present article summarizes modern and Ayurveda view on *Bhagna* (fractures and dislocation).

KEYWORDS: *Ayurveda, Surgical, Bhagna, Fractures, Dislocation.*

INTRODUCTION

Ayurveda is science of life which provides many theories about prevention and treatment of diseases. The stressful and overcrowding scenario of modern day life style witnessed many incidences of physical trauma and injury leading to the skeletal system disturbances in terms of fractures and trauma. Ayurveda described such types of condition as *Bhagna* means break in continuity of bone. Here Ayurveda mainly focuses on two types; first one is *Sandhimoksha* (dislocation) another one is *Kandabhagna* (fracture in bone). Trauma, fall, compression, injury from teeth of ferocious, docile animals, road traffic accidents, occupational hazards and sudden jerk, etc. can cause bony fracture or dislocation. Ayurveda under the heading of *Shalyatantra* elaborated causes, symptoms, complication and management of *Bhagna*. The minor means hairline as well as major fractures comes under the heading of *Bhagna* therefore Ayurveda suggested therapeutic modalities for different types of fractures. Furthermore *Vaghabhata* classified *Bhagna* as *Sandhi Bhagna* and *Asandhi Bhagna* while *Savrana Bhagna* and *Avrana bhagna* are mentioned in *Madhava Nidana*. This classification clearly indicates that Ayurveda philosophers were well aware about the knowledge of fracture as well as dislocation. *Acharya Sharangadhara*

described eight varieties of *Bhagna* as depicted in **Figure 1**.

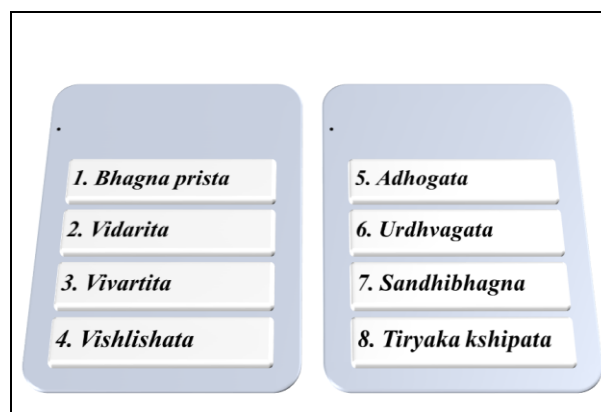


Figure 1: Varieties of *Bhagna* as per Acharya Sharangadhara

Symptoms of *Bhagna*

Ayurveda mentioned various symptoms of *Bhagna* including *Swayathu Bahulyam*, *Spandana vivarthna*, *Avapeedyamaney Sabda*, *Srasthangata*, *Vividha vedana* and *Sarvasvasthasu Nasharmalabha*, etc. Similarly modern medical science also mentioned some specific

symptoms of fractures and dislocation like; swelling, tenderness, crepitus, restricted movement, varieties of severe pain and discomfort, etc.

The various conditions associated with dislocation in modern science can be correlated with Ayurveda terminology of *Sandhimoksha* as follows:

- ❖ *Atikshiya Sandhimoksha* resembles gross displacement in modern science
- ❖ Fracture dislocation possess swelling on either sides of joint with pain at night resembles *Utpishta Sandhimoksha* in Ayurveda
- ❖ Dislocation associated with tear of ligament can be correlated with *Vishlishta Sandhimoksha* in Ayurveda possess mild swelling with constant pain.
- ❖ *Vivarthita Sandhimoksha* in Ayurveda resembles Anteroposterior dislocation
- ❖ *Tiryakshiya Sandhimoksha* means oblique displacement as per modern concept
- ❖ Downward displacement can be considered as *Avakshiya Sandhimoksha* in Ayurveda

As mentioned above the various conditions associated with fracture in modern science can also be correlated with Ayurveda terminology of *Bhagna* as follows:

- ✚ Depressed fracture can be termed as *Karkataka* in Ayurveda
- ✚ *Ashvakarna* means complete oblique fractures
- ✚ Communicated fracture can be correlated with *Churnita* as per Ayurveda terminology
- ✚ *Pichchita* is types of compressed fracture
- ✚ *Asthichallita* means Periosteal evulsion fractures
- ✚ Complete compound fractures resembles *Kandbhagna* in Ayurveda
- ✚ *Majjanugata* resembles fracture impaction as per modern science
- ✚ Complete compound fractures indicates condition of *Atipatita* in Ayurveda
- ✚ *Vakra* means greenstick fractures
- ✚ Incomplete fractures can be termed as *Chinna* in Ayurveda.

Ayurveda management of *Bhagna*

Bhagna Sthapana, *Bandhana* and *Sukhchestaprasara* are major approaches in case of *Bhagna*, here *Bhagna Sthapana* means reduction in symptomatic and pathological severity of fractures and dislocation, *Bandhana* indicates approaches of immobilisation or retention so that healing process take places. *Sukhchestaprasara* means exercise in terms of physiotherapy to extend restricted movement and to regain normal positioning of dislocated joints and bones. Moreover uses of oral and parenteral medication also suggested to get symptomatic relief especially in modern medical science however topical drugs also provide therapeutic benefits in case of *Bhagna*.

Anchana (Traction), *Peedana* (Compression) and *Bandha* (Bandage) helps in joint fracture and facilitate process of healing thus helps to regains normal state.

Rest, cold irrigation, medicinal plaster, dressings and uses of medicated oils, etc. are helpful to get relief from fracture and dislocation.

The parts of some plants provides health relief in *Bhagna*, mainly barks of such plants used for therapeutic purposes for fracture and dislocation, these plants are; *Palasa Butea frondosa*, *Madhuca Madhuca longifolia*, *Aswatha Ficus religiosa*, *Udumbara Ficus glomerulata*, *Kakubha Terminalia arjuna*, *Sarja Terminalia tomentosa*, *Vata Ficus bengalensis* and *Vamsa Bambusa bambos*, etc.

Ayurveda approaches for Immobilization

Panka pradeha is one of the immobilization technique mentioned in *Bhaishajya Ratnavally*, in which mud applied around the fracture site. This ancient approach can be correlated with application of plaster of parris in modern science. White of egg along with black gram powder and cloth can also be used for immobilization purpose.

Ayurveda approaches for Rehabilitation

Rehabilitation helps to eliminate physical disability and helps to regain physical ability with gradual training. In this regards *Susrutha* advised to bear weight and increasing weight bearing capacity as fracture healing progress. Bolus of mud, rock salt and *Pashana* are recommended to bear as weight of increasing order.

Brimhana aahara and *Brimhana paaniya* also advised to fasten healing process, specific *Ahara* like; *Salyanna*, *Majja*, *Gritha*, *Mamsarasa*, *Yoosha* and *Ksheera*, etc. can improves process of healing and regeneration thus provides relief in fractures and dislocation.

Ayurveda approaches for *Bandh*

Bandages (*Bandh*) helps to hold the splints and dressings in desired position, stop bleeding, give support to the tissue, retain topical medicaments at site of application, prevent oedema, helps to correct deformity and provide symptomatic relief. In this regards ayurveda suggested uses of sheath (*Kosa*) around thumb and fingers, cross like spica around joints, *Anuvellita* (spiral) bandages around upper and lower limbs, *Khatva Bandh* for jaw and cheeks, etc. Various materials are used for bandaging purposes such as; cloths of linseed fibres, cotton fibres, woolen materials, silk cloths of *Naga* tree fibres, inner layer of bark, animal skin and *Munja* grass, etc. Bandaging should be done carefully so that it should be neither too tight nor too loose to avoid swelling, blebs, pain and instability to retain materials. It also recommended varying frequency of bandaging depending upon climatic conditions i.e.; in the interval of three in hot season, five for normal season and seven days for cold season.

CONCLUSION

Ayurveda science encompasses great knowledge towards the management of fractures and dislocation under the

heading of *Bhagna Chikitsa*, Ayurveda mentioned various therapeutic modalities for the management of *Kand bhagna* (bone fracture) as well as *Sandhimoksha* (dislocation). *Bhagna Sthapana*, *Bandhana* and *Sukhchestaprasara* are major modalities which help to manage fractures and dislocations while modern science emphasizes on surgical and para-surgical approaches to treat fractures and dislocation. Trauma, compression, injury from teeth of ferocious, docile animals, fall, occupational hazards, sudden jerk and road traffic accidents, etc. can cause bony fracture or dislocation. The incidences of such cases increasing now a day's therefore it is required to adopt classical as well as modern approaches for managing such types of cases.

REFERENCES

1. Ambikadatta Shastri, Ayurvedatatvasandeeepika Hindi commentary, Sushruta Samhita, Chikitsa Sthana, Chapter 3/70, Reprint 2nd edition, Chaukhamba Sanskrit Sansthan, Varanasi, 2014; 17-19.
2. Raja Radha Kant Deva, Sanskrit Dictionary, Shabdkalpadruma, 3rd edition 1967, Chaukhamba Sanskrit Sansthan Varanasi, 1985; 432.
3. Monier Williams, Sanskrit English Dictionary, 4th edition 1989, Motilal Banarasi Das publishers New Delhi, Re-print, 1990; 389.
4. Ambikadatta Shastri, Ayurvedatatvasandeeepika Hindi commentary, Sushruta Samhita, Nidana Sthana, Chapter 15/4, Reprint 2nd edition, Chaukhamba Sanskrit Sansthan Varanasi, 2014; 377.
5. Knight KL. Cryotherapy in sports injury management, Int Perspect Physiotherapy, 1989; 4: 163.
6. Knight KL. Cryotherapy in sports injury management, Int Perspect Physiotherapy, 1989; 4: 163-185.
7. Sushruta, Shushurta Samhita, part-I, AyurvedaTatwa Sandeeepika Hindi Commentary, Edited by Kaviraj Ambika Dutta Shastri Nidanasthana. Bhagnaadhaya 15/6, Chaukhamba Sanskrit Sansthan, Varanasi, 2002; 13: 291.
8. Sushruta samhita-Chikitsa Sthana; by Dalhanacharya commentary, Chaukhambha publications, Edition reprint, 2004; 3.
9. Sushruta, Shushurta Samhita, part-I, AyurvedaTatwa Sandeeepika Hindi Commentary, Edited by Kaviraj Ambika Dutta Shastrichikitsaa sthana. Bhagna chikitsaadhaya 3/18,19, Chaukhamba Sanskrit Sansthan, Varanasi, 2002; 13: 21.