



Review Article

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To Investigate the Possible Mechanism of “*asthisanghar churna*” in *Asthi Bhagna* W.s.r. To bone fracture: A Review Study

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ABSTRACT

According to modern science *Bhagna* (bone fracture) is include under of Fracture. Generally, fracture take time to heal in adults 6-8 weeks, and this time of duration patient must go on bed and because of this condition may develop some complications like muscle wasting, joint stiffness, thrombosis in deep veins, improper movement of that joint etc. along these hazards patients suffers other things also like stress, irritation, and prolong healing create financial problems. It is approximate that 80% of the population faith on tradition herbal (ayurvedic) medicine which are living in developing countries. Now this modern world's big problem and challenge is the managing of the skeletal coordination damages which come about as the consequence of trauma in maximum cases. In ancient period. *Acharya Sushruta* already mentioned that herbs can sufficiently effective in reducing swelling, pain and soreness of the fracture and also speedy recovery of function. Aim of this paper presents for evaluate a significant viewpoint of healing of bone breakage (*bhagna*) management according to the Ayurveda practice. Possession above aim in thoughts we selected “*asthisanghar churna*” from “*Chakradutta Bhagna Chikitsa (CBC)*” after which applicable keywords have been examined in diverse Ayurveda and cutting-edge writings in addition to on on-line databanks to recognize the mode of action (MOA) of character contents of Rasonadi Kalka in accelerating fractured bone recovery in instances of *Bhagna* (bone fracture).

Keywords: *Bhagna*, Fracture, Irritation, Stiffness, Skeleton Injuries.

INTRODUCTION

Starting from living the trauma being birth partner of human and that always troubled him. However, human faced it bravely and sometimes it can cause huge difficulties. Now in this modern era with the sophisticated and advanced life styles, trauma of skeletal injuries is constantly increase in numbers and this affect all age groups and also interrupt the day today life. Skeletal system injuries need a judicious and holistic management and not only to fix or unite the fractures, it needs also functionally and cosmetic aspect of recovery should be maximal possible at the earliest with minimal cost^[1]. So, we need to know and apply the ayurvedic methods and treatment in skeletal injuries to minimize cost effect of treatment for patients and also minimize the side effects of modern methodology of fracture treatment. Great scholar *Acharya Sushruta* has already mentioned about the musculoskeletal injuries in the chapter of *Bhagna*. He has precisely explained about the *Bhagna Chikitsa (BC)* for the surgical management of the injuries. The *bhagna* word is made up of two words like i.e., *Bhanj* and *Katu*. where *Bhanj* mean movement and *Katu* mean breaking. *Bhagna* word can be understand with the fracture word of the modern science^[2].

Now Fracture mean is the break in continuity of any bones or interruption in their movement due to any kind of movements. Furthermore, *Asthisanghar* promotes healthy fat metabolism, which aids in the maintenance of healthy muscular tone. This not only helps with joint motions, but it also improves physical wellness. These steps will assist you in adapting to a person's health and wellbeing^[3].

Bhagna is formed from the words *Katupratyaya* and *bhanj-dhatu* both of which signify to shatter. *Bhanj* implies motion, which once again indicates breaking. Trauma to the joints manifests itself across several manners. *Acharya Sushruta* paid close attention to the matter and discovered not all bones have the same sort of damage response.

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A congenital defect in a bone or joint, unhealthy bone, a fracture of bones that was appropriately reduced but misaligned due to incorrect immobilization or splinting, and if the fracture component is disturbed, all these factors contribute to recurrence give. Various kind of Bhagna bone dislocation and bone fracture shown in Figure 1.

The study aimed to assemble the numerous ideas of fracture control as



Figure 1: Illustrating Various Form of Asthi Bhagna [4].

DISCUSSION

We selected “Asthisangharadi churna” from “Chakradutta Bhagna Chikitsa” after which searched relevant key phrases in numerous Ayurveda and present-day texts in addition to on on-line databases to understand the MOA of individual contents of Asthisangharadi churna in accelerating recuperation of fractured bone (Bhagna) computerized databases had been additionally looked for this purpose. All the facts on fractures and its control in ayurvedic literature covered on this review.

According to Ayurveda, the accomplishment of Chikitsa hinge on upon Chikitsa Chatushpada- ‘the four pillars of treatment’ and Aushadh (drug) is one of them. Acharya Vagbhata mentioned four qualities of

defined in Ayurveda, their feasible interpretation in line with the present-day technology and to electrify upon the sensible software of those standards withinside the control of the skeletal injuries. Classical texts of Ayurveda viz. Sushruta Samhita, Vagbhata, Bhava Prakasha and current present-day texts had been explored for the applicable literature.

drug i.e., Bahukalpam (suitable to make different products), Bahugunam (having many qualities), Sampannam (fulfilled with Uttama Rasa, Veerya, Vipaka), Yogyam (ability to break pathology). Keeping above qualities in mind, the formulation was analyzed.

Contents of Asthisanghar Churna

Cissus is another name for Ashthisanghar. Climbing vine is a member of a grapes species. Something distinguishes these species is that its elongated stems grow into internodes that resemble humanoid bones and joints. Interestingly, the plant has been utilised to promote bone density since antiquity. It promotes skeletal tissue growth by rendering it flexible. Ingredients of Ashthisanghar Churna enlisted in Table 1.

Table 1: Showing the Ingredients of Asthisanghar Churna [5].

Sr. No.	Ingredients	Latin/English Name	Part used	Quantity
1	Asthisanghar	<i>Ciccus quadrifolia</i>	Stem	1 part
2	Laksha	<i>Laccifer lacca</i>	Resin	1 part
3	Gehu	<i>Triticum ae stivam</i>	grain	1 part
4	arjuna	<i>Terminalia arjuna</i>	twak	1 part

Method of preparation

- Collect the raw material.
- Wash with water and dry under the sterile condition.
- Make fine powder and store in air tight container.

Dosage and Anupanam: 10 gm powder with luke warm gau grita. The active phytochemicals in this Ayurveda herb additionally assist in maintaining healthy lipid profile or blood circulation to all portions of the body. This both enriches and activates our skeletal system. As a

result, this plant is regarded as a strong complement for improving health and very well [6].

Assessment of Pancha Padartha of Ingredients of Asthisanghar Churna (Figure 2): Rasa, Guna, Veerya, Vipaka and Doshagnata of each ingredient of asthisanghar churna and Anupanam-Gau grita are presented in tabular form in Table 2.

Finally, minor advantages of Ashthisanghar churan also include beneficial impact on sexual health. Overall, its tridoshic activity is produced by its warmth and bittersweetness. The warmed warmth decreases inflammation and swelling, while the bitterness lowers Pitta and the sweetness balances Vata. The Vedic specialists at Athreya

Herbs combine Ashthisanghar with the other strong herbs to create organic medicinal powdered and bottles. Ayurveda has been the forerunner of all world medicines since man first considered offering an appropriate solution to his problems. Energy and matter exist in all living creatures in the form of Dhatu, Dosha and Mala, but the most crucial supporting structure of the organism is Asthi [8].

Assessment of MOA of Pancha Padartha of asthisanghar churna and Gau grita: The ingredients prominently have Madhur and Kashaya Rasa

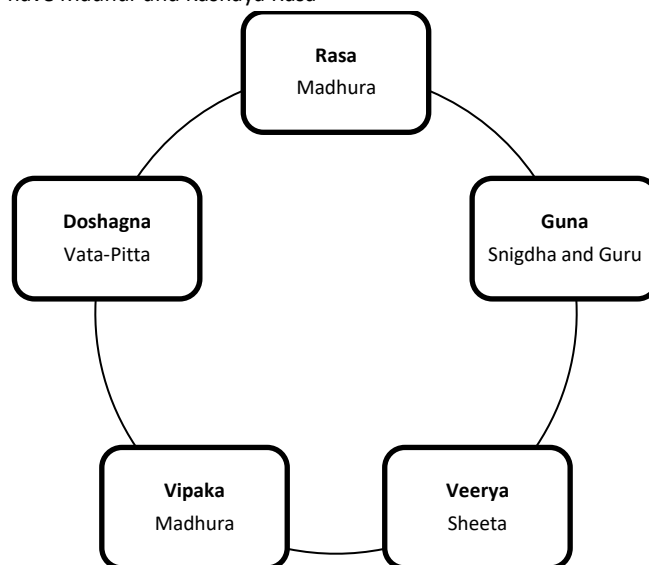


Figure 2: Pancha Padartha of Gau grita (Anupanam of Asthisanghar Churna)

Table 2: Role of different Ingredient of Asthisanghar Churna [7].

Pancha Padartha (Elements)	Asthisanghar	Laksha	Gehu	Arjuna
Rasa (Taste)	Madhura	Kashaya	Madhura	Kashaya
Guna (Quality)	Laghu, rooksha	Laghu & snigdha	Guru & snigdha	Rooksha & laghu
Veerya (Energy)	Ushna	Hima	Sheeta	Sheeta
Vipaka (Ripeness)	Katu	Katu	Madhura	Katu
Doshagna (Condition)	Vata- kapha	Kapha-pitta	Vata-pitta	Kapha-pitta

Features of Ashthisanghar churana

As Ayurveda herbal product Ashthisanghar has several benefits in healthcare some features are describes below in brief.

- It promotes biological health by increasing testosterone.
- It is a one-of-a-kind plant that supports bones, knee, and serve to strengthen.
- It enhances joint aspect regeneration and elasticity.
- The benefits of Ashthisanghar Powder include the promotion of muscle mass and the management of balanced metabolism.
- Ashthisanghar powder helps digestive function through assisting in the removal of extra Ama (metabolic toxins)
- This Ayurveda ingredient promotes adequate blood flow to the joints.
- It promotes biological health by increasing testosterone.

Ashthisanghar churna has been best consumed with Ayurvedic Intermediate Ingredients (Anupanas). Anupana is a transporter or transporter material that transports herbs into the body for

and Madhura Vipaka and prominently have Guru and Snigdha Guna. These properties prominently pacify vitiated Vata-Pitta-Rakta. According to Acharya Charaka, Madhura Rasa causes Sarvadhata Vivardhana and is Balya, Brinhan, Ksheena-kshata Sandhana Kara. Kashaya Rasa has Sangrahi, Sandhanakara and Ropana properties. According to Acharya Sushruta, Madhura Rasa causes Bala-Sandhana Krita, Kshata Ksheena Hita. Kashaya Rasa has Sangrahi and Ropana properties [9].

appropriate absorption and full efficacy. When combined with the appropriate Anupana, the plant is becoming more and stronger.

Effect of individual contents of Ashthisanghar churna

- Ashthisnghar (ciccus quadrifolia) : According to bhavprakash Nighantu, asthisrankhla vata-kapha shamak and help in healing of bone fracture.
- Laksha (laccifer lacca) : According to bhavprakash Nighantu, laksha kapha-pitta shamak.
- According to Bhavaprakasa Nighantu, Laksha is Jwaraghna, Vrana Ropak.
- According to Dhanvantari Nighantu, Laksha has Shonitpittanut, Vran-hanti, Bhut-jwara Hanti properties.
- Gehu (Triticum aestivam): According to charak samhita, Madhura and snigdha to create sandhana karma. According to bhavprakash Nighantu, it is sheeta veerya and promote bone healing and also wound healing.
- Arjuna (Terminalia arjuna): According to Bhavprakash Nighantu, arjuna have Kashaya rasa, it acts as a stambhana

karma and it heals fracture healing because of its astringent and styptic properties [11].

Effect of Anupanam- Gau Ghrita (Cow ghee)

According to Acharya Charaka, Ghrita has Oja, Kapha Vivardhaka, Vata-Pitta-Jwara Apaham properties. It also has Sanskaranuvartan Guna (property) due to which it adopts properties of other drugs. It has Madhur Rasa and Madhur Vipaka, Sheet Veerya due to which Acharya

Charak consider Ghrita as best medicine to pacify vitiated Vata-Pittaj Dosh. Having Madhura and Sheeta properties it helps in pacifying Pitta and Rakta Janya symptoms like Shotha and Shopha, etc. and due to Snigdha and Guru properties it pacifies Vata and Vata Janya symptoms like ruja (pain). All these properties described above will be used in bone fractures when using all the above ingredients in churna form (Asthisanghar Churna) [12]. Four basic principle of bhagna chikitsa (BC) are show in Figure 3.

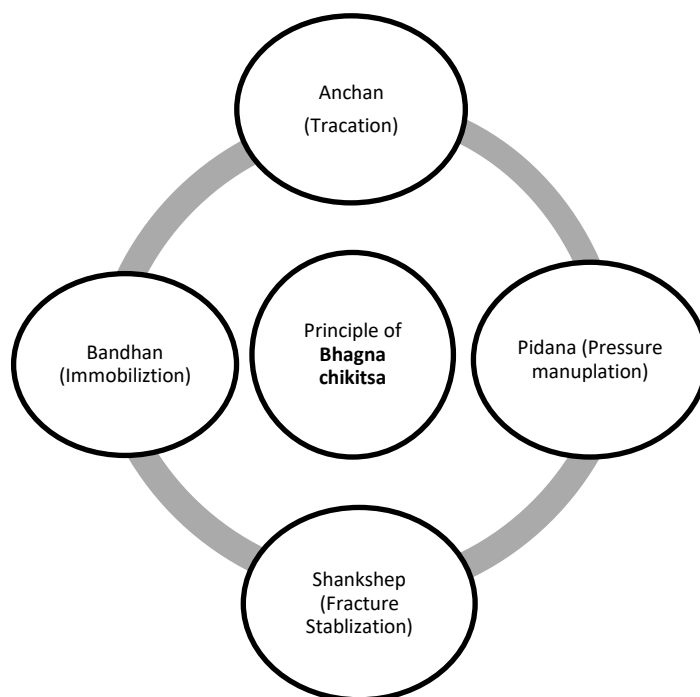


Figure 3: Representing the Bhana Chiksista Four Basic Principle

Table 3: Chemical Composition of Contents According to Modern Science of Herbal [5-10].

Contents	Chemical	Effects
Asthisanghar	Sitosterol, carotenoids, ascorbic acid, triterpenoids, traxerol, and the plant extract have a rich source of calcium ions.	It comprises a wealthy supply of triterpenoids, Ascorbic acid. Compounds that performance as receptor antagonists and carotenoids of glucocorticoids have decreased the recovery time of damaged bones. Around 31- 50 in medical trials. It has additionally continued used to deal with weight problems and related oxidative stress. Its bactericidal outcomes on Helicobacter pylori keep promise as a powerful remedy of stomach sores and preventive in belly most cancers alongside anti- inflammatory therapy.
Arjuna	Tannins, Arjunglucosides I & II cerasidin, cerasidin Arjunoside I, II&IV, Arjunone, Arjunolic acid. Arjunic Acid, Arjunetin, A Arachidic stearate, Bark: magnesium and calcium and salts, flavonoids.	Useful in bleeding disorders, it heals fracture and wounds quickly.
Laksha	Wax, water. Resin, dye, mineral matter, matter albuminous Resinoltannols of aleuritic acid; erythrolaccin; lacconic acid.	Anti-inflammatory, Anti- arthritic, Anti-dysenteric, Haemostatic, Rejuvenative,
Gehu	It has also been observed that ergosterol (provitamin D) is present. Wheat germ is also employed because of its mineral, protein, and fat content. Germ proteins are high in lysine, have a high bioavailability, and have a protein rich operating efficiency.	It heals fracture of bones and wounds

CONCLUSION

After researching the literature to recognize the MOA of all ingredients of and its Anupanam- Gau Ghrita, this compound Ayurvedic formulation seem to be effective in early healing of fractured bone, also the drug is cost effective and easy to prepare. This formulation can be prepared by Ayurvedic physician himself or can be prepared by attendant after getting proper instruction from the physician. But before establishing it as an effective medicine which may accelerate bone healing & remodelling and as a remedy to decrease immobile period, this drug should undergo clinical trial. We can initiate the ayurvedic formulations to cure emergencies like skeletal system injuries.

Conflict of Interest

None declared.

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