



INTRODUCTION OF FRACTURE ACCORDING TO AYURVEDA

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ABSTRACT

Fracture is a many-sided pathology and its sensible organization required reason for forcoming stage of Ayurveda. Code of organization of fracture is to reinstate the usual or close to normal structural honesty and make-up of the cracked part, at the initial, without complications and with negligible complications. In modern science the only thing we find is calcium and D3 supplements according to Ayurveda. Ayurveda also the necessary values of mechanical running of fractures like first aid, decrease, immobilisation and physiotherapy have magnificently been describe. These essential major beliefs have as such been adopted by the modern. In adding to the local industrial association, adjuvant therapies. Spoken medicine, Panchakarma, diet regimen has also been mention. For recovery from fracture doctor need to check Prakriti (Psycho - somatic constitution) and nutritional status. By adopting these Ayurveda principles many such injuries can be managed successfully with minimal rate of complications. Even in injuries requiring surgical management these can play a vital role as an adjuvant therapy. Hence an attempt has made to recollect all the information regarding the same as mentioned in Ayurveda.

KEYWORDS: Ayurveda, Prakriti, nutritional, fracture.

INTRODUCTION

Fracture means a break in the continuity of a bone. This can happen as a result of a severe trauma or due to a secondary underlying condition. Fractures are of two types.

- **Open fracture** – when bone is broken in such a way that it sticks out through the skin
- **Closed fracture** – a break or crack in the bone that does not cut into the skin

In Ayurvedic texts, fractures have been explained as Khanda Bhagna / Asthi Bhagna (Fracture of Bones). These fractures can be caused due to various injuries including slip/fall from a height, pressure on joints, pulling with force, excessive movements, ferocious animal bites, striking, etc. Fractures can be of two types,^[2]:

- **Sandhimukta** - that is dislocation
- **Kanda-bhagna** - that is body fracture

As surgery made fast development down the centuries, the action of fracture began to be studied as separate branch called Orthopedics or the art of correcting and preventing deformities. This part of medicine comes

under Shalyatantra in Ayurveda. Susruta the father of surgery is forcefully a surgeon in all respect. He has known this without the help of x-ray or other modern diagnostic gadgets. This was done through extensive cadaver dissection. Susruta samhita is the only complete work in this field that is available us. Just like the modern orthopedic have two branches - Orthopaedics and Traumatology. Ayurveda too had similar branches namely Marma Chikitsa and Bhagna chikitsa. The word Bhagna and fracture literally means one and same to break. The word Bhagna is copied from the root *Bhanje Amardane*". The term bhagna covers all bony disruptions ranging from highly comminute fractures at one end of scale to minute hairline fractures. Bhagna has described under two most important heading namely Kanda Bhagna and Sandhi Mukta. Vaghabhata has top secret as Sandhi Bhagna and Asandhi Bhagna. In Madhava Nidana, Madhukosa tika -Savrana Bhagna and Avrana bhagna are mentioned.^[1-3]

AETIOLOGY OF A FRACTURE

According to the description given by Sushruta, trauma such as compression, fall, blows specific traumas from teeth of vicious, docile flora and fauna are mentioned as the cause of various types of fracture. Nowadays due to

deforestation and industrialization the nature of trauma has greatly changed and the cause of injury is widely distributed to other causes, such as road traffic accidents, occupational hazards etc. One may wonder why so many types of aetiology of fracture are mentioned by all these Acharyas. This may be to make the students know, that fracture from the tooth of a docile animal will be different from that of a blow. In other words fractures resulted from each and every nidana will be different from the other. This holds well with the modern idea of mechanism of injury.

TYPES OF DISLOCATIONS

1. Utpista- Fracture dislocation
2. Vislista- Dislocations of joints due to ligamental tears
3. Vivartita- Anterior-posterior dislocation of the head of the humerus
4. Avakshipta- Downward displacement of the head of the humerus
5. Atikshipta- Marked displacement of any articulation surface
6. Tiryakshipta- Oblique dislocation in one of the articulating bones.

The types of Fractures are

1. Karkataka- Depressed fracture.
2. Ashwakarana- Complete oblique fracture.
3. Churnitam- Comminuted fracture
4. Pichhitam- Fracture by compression.
5. Asthichallita- Sub periosteal avulsion.
6. Kandabhagna- Complete spiral fracture
7. Majjanugatam- Impacted fracture.
8. Atipatitam- Complete compound fracture.
9. Vakra- Green stick fracture.
10. Chinnam- Incomplete fracture.
11. Patitam- Comminuted fracture flat bones.
12. Sputita- Fissured fracture

DISCUSSION ACCORDING TO AYURVEDA

Aim of treatment of fracture is to restore the normal anatomy or near to normal structure and physiology of fractured part. Principles of Management:

There are four basic principles

1. Anchana (Traction)
2. Peedana (Manipulation)
3. Sankshepana (Opposition and Stabilization).
4. Bandhana (Immobilization)

Another way of treatment divided into two types: - 1. Avrana Bhagna 2. Savrana Bhagna

First Aid Yognatakar has mentioned sprinkle cold water to injured area and then a layer of mud should be immediately applied mostly used in avranabhagna (cold water causes constrict blood vessel resulting into less swelling less blood loss further keep swelling and pain minimal).

Management of Avrana Bhagna: 1. Bhagna Stahapna (Reduction): Cardinal rule of reduction is apply the opposite forces to that of forces responsible for injury. Mainly traction and counter traction method is used for reduction. Acharya Sushrut has mentioned following technique for closed reduction: Aanchan peedana, sankshepan, bandhana 2. Bandhana (Immobilisation): After injury has been reduced, it need to stabilise till it unites. For immobilisation two methods have been advocated i.e. kushabandhan and kapatshayn.^[4-5]

Immobilization Techniques in Ayurveda

There is enough evidence to prove that Susrutha and his followers had profound knowledge on immobilization techniques. One of the applications mentioned in Bhaishajya Ratnavally is Panka pradaha. It means application of mud around the fracture site. Most probably it could be analogous with plaster of parries which we practice today.

Rehabilitation

The first objective of rehabilitation is to eliminate the physical disability to the greatest extent possible second to alleviate or to reduce the disability to maximum possible level and third to train the person with residual physical disability to work and live within the limits of disability but to the hilt of his capabilities Significance of the principles of rehabilitation was known to Ayurvedic Acharyas. Susrutha has instructed the patient of fracture carpal bone to bear weight in increasing order as the fracture healing progress. He instructs the patient to bear the bolus of mud and then rock salt and later Pashan.

There are certain foods that hastens healing

- Mamsarasa- Meat soup
- Majja- Marrow soup
- Salyanna - Unpolished rice
- Yoosha- Dal soup
- Gritha- Ghee
- Ksheera-Milk and its products
- Brimhana paaniya- Nourishing drinks
- Brimhana aahara- Nourishing foods

ORAL MEDICATION

1. Boiled milk of primiparous cow with ghrita and mix with drugs of kakolyadigana and lakshachurna will be given to patient of fracture
2. Arjuna powder, laksha powder, wheat and asthi shrinkhala along with ghee and milk is also useful.
3. Rasona and laksha mixed with honey and ghrita is also given.

Parental Medication 1. Fractures occurring in upper part of body will be treated with mastishkya and karnapurana. 2. In fracture of extremities nasya and ghrita pana is used 3. And in all kind of fracture, anuvashan basti is useful Bhagna Rohan Tail: Gandh tail and trapushadi tail.^[6-8]

CONCLUSION

In Ayurveda there is nothing needs to be added or deleted from the text even now. Except for its surgical part we can find solution for almost all orthopaedic effort through our good old Susrutha Samhitha. Our Acharya has approach to the treatment of fractures and dislocations were rational, practical and even radical because he was not averse even to break a mounted bone and resetting it. These practices are still in vogue in many parts of rural India where families of bone setters continue to serve and remind one of their common ancestries with Indian tradition.

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