



A single case study - Efficacy of Basti with an Internal medication in healing of Non-union type fracture.

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ABSTRACT

PURPOSE -

To evaluate the effectiveness of basti treatment with an internal medication in the healing of Non-union type fracture. Background - Many post operative patients are facing issues regarding healing of Non-union type of fracture with symptoms of severe pain and decreased quality of life . Objective - Study is to document clinical outcome that how remarkably fracture has healed and most important that quality of life of patient has improved after Ayurvedic treatment.

METHODS -

One post operative Subtrochanteric fracture right femur - Long Proximal Femoral Nail taken for study. X rays were done to confirm diagnosis. Patient underwent a comprehensive Ayurvedic treatment – Basti : YOG BASTI and MATRA BASTI with internal medication and dietary management. Follow up x-rays were performed to assess healing of fracture after a specific treatment duration.

RESULTS -

The patient X-ray demonstrated that the callus formation has started. The potential benefits of ayurvedic intervention were observed by reducing symptoms.

Case specific details - Type of fracture - Non-union type. Duration of treatment 6 months. Extension of healing - 99.9 % as per the case. Treatment regimen include – Basti , Gogrita, Kadunimba churna , Laksha, Godhugdha, etc.

CONCLUSION –

The findings of this case study suggest that Ayurvedic treatment- Basti with internal medications promised as therapy for patients with Non-union fracture type. The observation of healing of Non-union type fracture warrants further investigation through large sample data. Additional research is needed to establish definitive efficacy of this ayurvedic intervention. Result of this study provides encouraging evidence for its potential benefits.

KEY WORDS -

Fracture, Non-union type , Basti - Ayurvedic Panchakarma , Bhagna , Sthanik chikitsa .

INTRODUCTION:

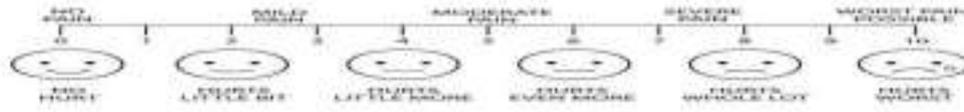
Fractures are a common orthopedic problem in all age groups of patients with an incidence of about 37 per 100,000-person year. Femoral fractures are most common. Treatment of these fractures can be done with variety of plates and retrograde intramedullary nails. Early studies of treating femoral fractures with locked plates reported outcome with non-union rates of 0- 14%. However, the analysis of recent data shows non-union rates as high as 17-21%. Purpose is to evaluate the effectiveness of Yog basti and Matra basti treatment with an internal medication in the healing of non-union type. A fracture is a complete or incomplete break in the anatomic continuity of bone, which leads to mechanical instability of the bone. The clinical features of fracture include: Pain, tenderness, restricted movements and on and off swelling. Factors affecting bone healing - Degree of local trauma, blood supply location of fracture, type and severity of fracture, infection, age, nutrition, smoking, co-morbidities, NSAIDS, alcohol. On the basis of time period of healing fracture can be classified as: A) Union (within 3 months), B) Delayed union (between 3-6 months), C) Non-union (established when a minimum of 9 months has elapsed since fracture with no visible progressive signs of healing for 3 months). Every fracture has its own timetable (long bone shaft fracture 6 months, femoral neck fracture 3 months). Bone healing in cortical bone after fracture can be primary or secondary. Primary healing (intramembranous ossification. Secondary healing (endochondral ossification). Signs of healing of fracture - There is a lack of consensus on how to assess fracture healing. However, common clinical criteria to indicate healing include: Evidence of callus formation on radiology, CT, MRI or ultrasound, Absence of pain / tenderness on weight bearing, Absence of pain / tenderness on palpation, ability to weight bear. In Ayurveda causes of bhagna - Patan, Pidan, Prahar, Aakshepa, Vyala, Mruga etc . are given. There are different types of Bhagna. Mainly two types 1) Sandhimukta 2) Kandabhagna, accordingly management is given. Because of physical disability patient affect in many ways. Patient's family life, social life, occupational life as well as psychologically patient is affected. Many times we see that the patient is outcast from the community because of this disability. The study is to document that how remarkably the fracture has healed and the quality of the life of the patient has improved after an ayurvedic treatment. The findings of this case study suggest that Ayurvedic treatment- Basti with internal medications promised as therapy for patients with Non-union fracture type. The observation of healing of Non-union type fracture warrants further investigation through large sample data. Additional research is needed to establish definitive efficacy of this ayurvedic intervention. Result of this study provides encouraging evidence for its potential benefits.

2). CASE REPORT

A 42 yr male patient presented with complaints pain in right leg and severe pain in back unable to sit more than 5 mins without support, cannot walk without support, indigestion, constipation, appearance- shuffling gait, overweight, frustrated, physical and mental disposition – the quality of life of the patient has affected physically, psychologically and economically. Occupation and socio-economic status – labour, poor. Patient has consulted many allopathic orthopedic surgeons and he was advised bone grafting, demineralised bone matrix, etc. Patient refused the treatment as it was very expensive and he could not afford it. Patient decided to take an ayurvedic treatment.

Assessment Criteria

Subjective criteria – Pain



Objective criteria – Walking : 0 - Normal walking with proper gait; 1 - Walk without support with shuffling gait ; 2 - Walk with support ; 3 – Unable to walk

X ray findings - Formation of callus was observed on the X – Ray in 3 settings, on 1st day, after 3 months, after 6 months.

Physical Examination

1) Inspection - Patient cannot bear weight on right leg, so unable to walk without support. No swelling and bruising, colour of skin is normal.

2) Palpation – Tenderness present at fracture site. Investigation –1) X – Ray Findings – shows Non-union type fracture (No callus formation or any signs of healing, complete non-union)

All **lab investigations** like BSL, KFT, LFT ,CBC with ESR was done –Findings Normal.

Histories - 1ST X - RAY Shows Non-Union type fracture (No callus formation or any signs healing, complete non- union) Subtrochanteric fracture Right femur - Long Proximal Femoral Nail done on date – 13/10/2021. PT came to an opd on Jan 2023 after 15 months. P/M/H – NIL , No K/C/O –DM/HTN/Thyroid/Koch's and any metabolic disorders.

P/S/H - Subtrochanteric fracture Right femur - Long Proximal Femoral Nail done on date – 13/10/2021.

Family History – Nil Patient is taking Tb Ultracet (Tramadol Hydrochloride, Acitamenophen), Tb Voveran (Diclofenac) weekly 4-5 times.

Diagnosis

Pre diagnosis of present case by allopathic orthopedic surgeons :Non-union type fracture. Non union type of fracture is when a minimum period of 9 months has elapsed since fracture with no visible progressive signs of healing for 3 months. Every fracture has its own timetable (long bone shaft fracture 6 months, femoral neck fracture 3 months). As per Ayurveda this case is diagnosed as - Sphutit Bhagna (type of kanda bhagna).



0 DAY AFTER 3 MTHS AFTER 6 MTHS

Treatment Plan

Treatment Regimen - Total duration of treatment – 6 Months

1) Sarvadehik Treatment- Yog Basti – A) Anuvasan Basti – Dashmool taila B) Niruha Basti – Dashmool kwath.

Matra Basti – 3 Settings of matra basti (Goghrita) for 21 days with gap of 7 days after Yog basti.

यथेष्टाहारचेष्टस्य सर्वकालं निरत्ययः । हस्त्रायाः स्निग्धमात्राया मात्राबसस्तः समो भर्ते बल्यं सुखोपचयं च सुखं सष्टपरीषकृत् । स्निग्धमात्रावर्धां हह बंहणं रातरोगित् Charak Siddhi Adhyay 4.

2) Sthanik Treatment- Tail dhara with Dashmool Tail

3) Abhyantar Treatment

SR.N	NAME OF DRUG	DOSE AND DURATION	ANUPAN
1.	Hingvashtak churna	250 mg BD(before meal) for 7 days	Koshna jal
2	Gandharva haritaki churna	500 mg HS for 7 days	Koshna jal
3	Laksha Churna + Godhugdha	500 mg + 200 ml milk OD (earlymorning) for 6 months	-
4	Kadunimaba + Ashwagandha + Asthishrunkhala churna	250 mg BD (before meal) for 6 months	Koshna jal
	Lakshadi guggulu	2 tabs BD for 6 months	Koshna jal

PROGRESS OF TREATMENT -

CRITERIA	DAY	MONTH	MONTH		
PAIN	8-10	5-7	1-3	1-3	0
WALKING	2 Walk with support	2 Walk with support	2 Walk with support	1 Walk without support but shuffling gait	0 Normal walking with proper gait

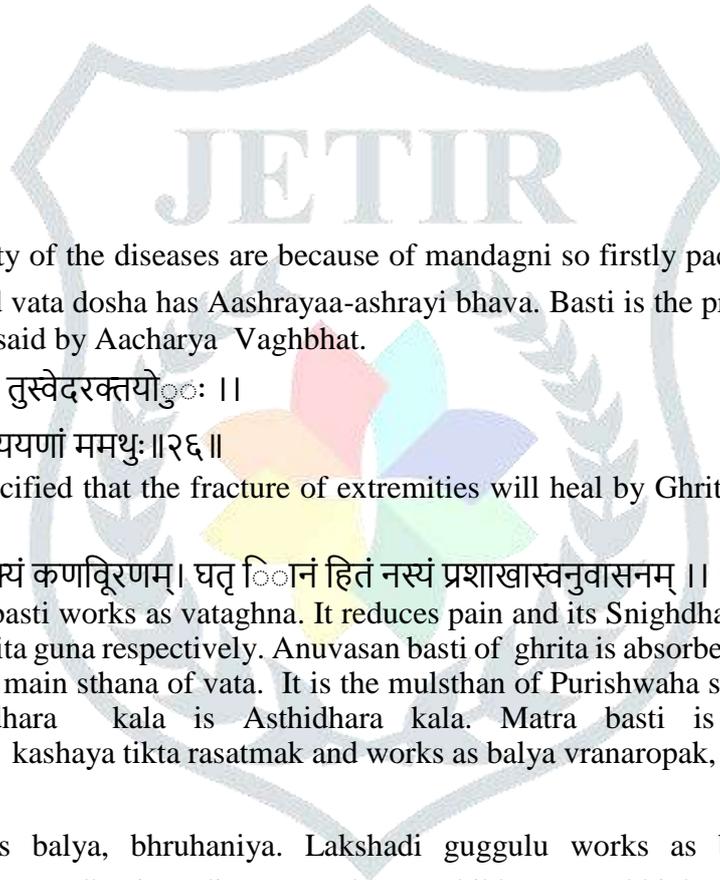
Discussion

Formation

Callus formation observed

X - RAY No Callus

ved



• Ayurveda says that majority of the diseases are because of mandagni so firstly pachan and anuloman were given Asthi dhatu and vata dosha has Aashrayaa-ashrayi bhava. Basti is the primary treatment for vata dosha and asthi dhatu said by Acharya Vagbhat.

तत्रस्थानी स्थतो वायुः पित्तं तुस्वेदरक्तयोः ॥

श्लेष्मा शेषेषुतने षामाश्रयाश्रययणां ममथुः ॥२६॥

Acharya Shushrut has specified that the fracture of extremities will heal by Ghritapan and Anuvasan Basti

ऊर्ध्ववकाये तुभग्नानां मस्तष्वयं कणवूरणम्। घृतिं हितं नस्यं प्रशाखास्वनुवासनम् ॥ ५४ ॥

Niruhabasti and Anuvasanbasti works as vataghna. It reduces pain and its Snighdha, Gura, Ushna guna pacifies Ruksha, Laghu, Shita guna respectively. Anuvasan basti of ghrita is absorbed well and promotes healing. Pakwashaya is the main sthana of vata. It is the mulsthan of Purishwaha strotas. According to Acharya Dalhan Purishdhara kala is Asthidhara kala. Matra basti is balya, vatrognut, sharirsanvardhak. Laksha is kashaya tikta rasatmak and works as balya vranaropak, bhagna sandhankar.

• Ashwagandha works as balya, bhruhaniya. Lakshadi guggulu works as bhagna sandhankar. Ashthishrunkhala works as sandhaniya, dipana, pachan, asthibhagna, abhighataj. Godughdha and Goghrita works as balya, bhruhaniya. Dashmool taila is tridosahar. Sthanik taildhara of dashmool tail acts as an instant pain relief upakrama. NSAIDS and analgesics have been avoided as they hamper bone healing

process. In this case study patient is given ayurvedic treatment without any allopathy interventions. As per the Orthopedic Association of India, there are 17- 21% population which goes in non union fractures per year. Patients are affected in many ways especially physically, financially, psychologically and socially because they cannot contribute to the community due to disability. There is need to encourage Ayurvedic practice for **Non- union** types of fractures.

Conclusions: The findings of this case study suggest that Ayurvedic treatment of Basti upakrama with internal medications has promised as an adjunct therapy for patients with Non-union fracture type. The positive outcome of the observation of healing in Non-union type fracture warrants further investigation through large scale sample size. The additional research is needed to establish the definitive efficacy of this ayurvedic intervention. Thus Ayurveda has the potential to treat this type of affected patients and thus improving their life physically, financially, psychologically and socially to firmly stand and contribute to the society

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