

Evaluation of Efficacy of Homoeopathic Medicines in Sickle Cell Anaemia

Abstract

Background & Objectives : Sickle cell Anaemia is a disease due to an abnormality in haemoglobin, which causes red blood corpuscles to change shape like a sickle when oxygen level in the blood falls. It is a genetically transmitted disease. It was first recognized in India about 30 years ago among the tribal groups, specially in Western Orissa, which has a greater prevalence. The CCRH initiated a study at CRU Sambalpur to ascertain the efficacy of homoeopathic medicines on sickle cell trait and sickle cell disease.

Materials & methods: The data of clinically diagnosed Five hundreds (500) cases was collected at Clinical Research Unit, Sambalpur. The fixed criteria of intensity of disease and improvement assessment was selected and characterized. The basis of prescription was according to presenting complaints, constitution, and generalities.

Results : Of the five hundreds (500) cases, 98 cases were markedly improved. The homoeopathic medicines Arsenic 30,200,1M; Bryonia 30,200,1M,10M; CeanothusQ, Kalmegh Q, Lecithin 30 were found to be most effective in Sickle cell anaemia. The range of haemoglobins percentage was increased to 11-12 gm from 7-8 gm.

Conclusions: The homoeopathic medicines helped in the reduction of frequency & intensity of the acute attacks besides alleviating sign & symptoms.

Introduction

Sickle cell disease is typically hereditary (can be passed from parents to its progeny). The primary genetic defect lies in the synthesis of globin part of Hb. The inheritance of abnormal Hbs obeys the Mendelian law. If both parents are heterozygous (AS) for a haemoglobin variant like HBS, there will be 25% chance of each off-spring being homozygous (SS) with chronic haemolytic anaemia, another 25% normal (AA) with adult type HbA and 50% being of Sickle cell trait (AS).

It is a chronic haemolytic anaemia characterised by sickle-shaped RBCs due to homozygous inheritance of Hbs. Its signs & symptoms usually do not appear until after the 6th month of life. The clinical manifestations of sickle cell anaemia are:

- Impairment of growth & development.
- Increased susceptibility to infection.
- Frequent attacks of sudden pain in abdomen, chest and joints, fever, ulceration of legs.
- Splenomegaly and hepatomegaly

The study was done from 1988 to 2003 at Clinical Research Unit, Sambalpur which aimed to explore the scope of homoeopathic medicines on Sickle Cell Trait and Sickle Cell Disease.

Methodology

A predefined format was adopted for collection and analysis of data to obtain uniformity. A detailed case taking comprising of presenting complaints, duration of complaints, first attack, frequency and intensity of complaints, family history, past history, was undertaken, as this forms the basis of the clinical assessment in terms of improvement. Mainly two tests were carried out to identify the Sickle Cell Anaemia patients.

1. Sickling Test : A drop of blood is collected from the patient and mixed with one drop freshly prepared 2% Sodium Metabisulphite solution on a microscopic slide covered with a coverslip and sealed with melted paraffin to make it airtight. Sickling of R.B.C.'s are usually visible under microscope within one hour.

2. Haemoglobin Electrophoresis : This is the major technique employed for diagnosis in neonatal and postnatal life to identify the phenotypes HbS, HbAS, HbFs etc. It is done in alkaline base in cases of Sick Cell Anaemia (trait and disease can be detected by this test only).

Data of 500 cases (297 male and 203 female) in the age group was 1 yr to 60 yrs. was studied.

Besides medicinal therapy patients were subjected to health counseling on their being registered under this project and were subsequently advised the following in general : to avoid cold exposure, narcotic addiction and to supplement iron components in the diet (leafy vegetables), patients were also advised for warm bath.

Criteria adopted for "intensity of disease":

- Mild : Mild joints pain, with mild fever or no fever
- Moderate : Fever , joints pain with swelling, headache intensity not so high.
- Severe : High fever, severe pain in lower & upper extremities with headache, vertigo, pallor face and frequent attack.

Criteria for "Assessment of Improvement":

- Marked : Patient remains absolutely free of any kind of complaints, like marked pallor, fever, joint pains and hepatomegaly, icterus, loss of appetite etc. for a period of 3 years
- Moderate : Patient remains free from complaints from 1-2 years
- Mild : In cases where there is increase in spacing between the paroxysm/

crisis or reduction in intensity and frequency of complaints.

No improvement: No response after treatment for a sufficient period.

Worse : Aggravation of subjective and objective symptoms.

Not Reported : The patient does not report back after first, second or third visit.

Dropped out : The patient does not fulfill the requirements of the project.

OR

Attending physician does not want to keep the patient under study on valid reasons.

Results:

Table 1: Improvement indices

	<i>Total</i>	<i>Male</i>	<i>Female</i>
Improved			
- Markedly	98	54	44
- Moderately	108	69	39
- Mild	128	77	51
Not improved	72	39	33
Not reported / Dropped out	94	58	36

Basis of prescription:

	<i>Total no. of cases</i>	<i>No. of cases responded</i>
Causation		
- Predisposing-	-	-
- Precipitating	-	-
- Miasmatic	25	10
Generalities	196	152
Presenting complaints	178	125
Constitutional	62	42

Duration of treatment

- Minimum : 03 years
- Maximum : 14 years

Groups

	<i>Total</i>	<i>Responded</i>	<i>Not responded</i>
3 years to less than 06 years	79	35	44
6 years to less than 09 years	190	120	74
09 years to less than 12 years	172	92	80
12 years and above	59	35	24

Recurrence of complaints during and after treatment

	<i>Total</i>	<i>Responded</i>	<i>Not responded</i>
No recurrence	98	54	44
Recurrence with			
- Less intensity	108	69	39
- Increased intensity	72	39	33
- Same intensity	222	135	78

Intensity of complaints:

	<i>Before treatment</i>	<i>After treatment</i>
Higher	92	37
Moderate	109	107
Lower	107	143
Not found	191	172
No acute attack	-	41

Table 2:
Distribution of Subjective and objective symptoms

A. Subjective

	<i>Total no. of cases</i>	<i>No. of cases</i>	
		<i>Sign/symptoms Mitigated</i>	<i>Sign/symptoms Disappeared</i>
1. Frequent attack of sudden pain / swelling of long bones joints.	445	363	182
2. Fever	276	142	134
3. Weakness	210	102	108
4. Headache	162	72	90
5. Dyspnoea	92	47	45
6. Chest pain	197	121	76
7. Pain in the abdomen	85	37	48
8. Vertigo	315	176	139
9. Backache	267	157	110

B. Objective

	<i>Total no. of cases</i>	<i>No. of cases</i>	
		<i>Sign/symptoms Mitigated</i>	<i>Sign/symptoms Disappeared</i>
1. Pallor	125	76	49
2. Splenomegally	82	57	25

Table 3:
Results of Pathological investigations

<i>Range of Hb(%)</i>	<i>Before treatment</i>	<i>After treatment</i>
7 - 8 gms	150	50
8 - 9 gms	120	45
9 - 10 gms	50	98
10 - 11 gms	14	122
11 - 12 gms	-	19
Eosinophilia	50	20
Target cells	120	75
Schistocytes	120	75
Ovalocytes	80	40
Circulating sickle cell	70	-
Neutrophil	30	05

Results:

Of 500 cases (297 males and 203 females). Table I shows distribution of patients according to their improvement, markedly (98), moderately (108), mildly (128), not improved (72) and not reported/dropped out (94). Table 2 shows the distribution of subjective and objective symptoms. The improvement in patients suffering from frequent attack of sudden pain/swelling of long bone joints (182/445) Headache (90/162), Dyspnoea (45/92), chest pain (76/197), Abdominal pain (48/85) Vertigo (139/315) and Backache (110/267). Table 3 shows the results according to pathological investigations before treatment and after treatment. Table 4 shows the efficacy of homoeopathic medicine on Sickle cell anaemia.

The drugs found effective are Alumina 200,1M, Arsenic alb. (30,200,1M), Bryonia (30,200,1M,10M) , Ceanothus Q, Chelidonium Q, Kalmegh Q, Lecithin 30, Magnesium Phos 6X, Natrum mur. (200,1M) , Rhus tox. (30,200,1M) , Vanadium (30), Pulsatilla (200) and Lecithin (30) etc.

<i>Name of the drug with potency</i>	<i>No. of cases prescribed</i>	<i>No. of cases S/S mitigated</i>	<i>No. of cases S/S disappear</i>
Alumina 200	62	35	27
Alumina 1M	35	20	15
Arsenic album 30	45	20	09
Arsenic album 200	47	11	08
Arsenic album 1M	22	08	06
Bryonia 30	204	150	50
Bryonia 200	240	105	70
Bryonia 1M	160	100	50
Bryonia 10M	90	40	20
Ceanothus Q	192	85	80
Chelidonium Q	172	67	60
Kalmegh Q	149	60	25
Lecithin 30	82	35	10
Natrum mur. 200	72	20	10
Natrum mur. 1M	62	22	12
Phosphorus 200	55	15	07
Pulsatilla 200	57	12	-
Rhus tox. 30	110	45	20
Rhus tox. 200	135	52	18
Rhus tox. 1M	75	30	20
Vanadium 30	205	82	52
Vanadium 200	225	87	63

Table 4 : Reliable indications of the medicines found useful:

<i>S.No.</i>	<i>Name of medicine</i>	<i>Indications</i>
1.	Alumina	Dryness of mucous membranes of skin Lack of vital heat Debility Headache Constipation, great straining Abdominal pains

2.	Arsenic album	Chilly patient Thirst increased for small quantity. Restlessness < night < mid day and mid night Desire warm food and drinks Pain with burning sensation > hot application.
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S.No.	Name of medicine	Indications
3.	Bryonia alb.	Hot patient < exertion < motion Desire cold food Thirst increased at longer interval Dryness of mouth Constipation Aching pain in extremities Desire sweets

4.	Ceanothus	Anaemic patients Liver and spleen enlarge Ch. Bronchitis with profuse secretion Marked blood pressure
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5.	Chelidonium	Liver enlarge Jaundiced skin Great lethargy Face yellow and wilted skin Jaundice, distention of abdomen Sluggish bowels, alternation of diarrhea and constipation.
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6.	Lecithin	Loss of appetite In anaemic patients Face pale, pulsating and ringing in ears.
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7.	Natrum mur.	Hot patient Tendency to catch cold Desire sweets Desire hot food & drinks Flatulence Consolation aggravates. Thirstlessness Constipation Reddish urine
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8.	Pulsatilla	Weeping disposition Hot patient Thirstlessness with dryness of mouth Desire fatty food Delayed menses Tendency to catch cold Coryza yellowish thick discharge. < night
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S.No.	Name of medicine	Indications
9.	Rhus tox.	< rainy season < winter < cloudy weather < bathing < exertion Pain in joints < rest < night > warm application > massage

Discussion:

Since the inception of this project a good number of patients have been treated by different homoeopathic medicines for various clinical manifestations of Sick cell anaemia. Homoeopathic medicines are capable of controlling the symptoms of the diseases so much so that the patients remain asymptomatic for years together. Drugs were able to reduce the paroxysm of acute manifestation and increase the gap of blood transfusions. Homoeopathic therapy also has its limitations especially in the cases where the Hb.% goes too down (below 5 gms%) for such cases blood transfusion is the only measure to be adopted to save the life of the patient.

52 cases were advised for other therapy and 72 cases were referred to hospital.

Conclusion:

It has been concluded that homoeopathic medicines viz: Lycopodium, Natrum mur., Phosphorus, Rhus tox., Bryonia, Ars. Alb., Kalmegh, Chelidonium, Ceanothus Vanadium were indicated and found useful. They also helped in the reduction of frequency, intensity of the acute attack besides alleviating sign and symptoms.

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Reference:

Concluding report of Clinical Research Unit, Sambalpur.