

EVALUATION OF EFFICACY OF POLY HERBAL UNANI FORMULATIONS AND MASSAGE THERAPY IN THE MANAGEMENT POST STROKE HEMIPLEGIA (FALIJ NISFI)

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ABSTRACT

Background and Objectives:

Stroke is one of the leading causes of death and disability. Hemiplegia is the commonest manifestation and classical sign of stroke. *Falij* indicates paralysis of longitudinal half of the body. *Falij* is treated successfully since centuries by Unani physicians. The method of treatment includes the process of *Ta'deel and Tanqiya* (normalization of temperament and evacuation of morbid matters). There is a need to validate this therapy on modern scientific parameters. Therefore, a study was designed to evaluate the efficacy of polyherbal unani formulation and massage therapy in the management of *Falij*.

Methods:

An observational clinical trial was carried out on 30 patients of Hemiplegia / *Falij*. Each patient was given *munzij* therapy for 14 days followed by one day of *nuskha e Mus'hil*. After *munzij Mus'hil* therapy massage therapy with *roghane farfiyoon* 20 minutes daily was given for another 15 days. Assessment of results is done on the basis clinical parameters (subjective symptoms and objective signs) using MRC Grading of Power.

Results

The study reveals that there is fair improvement in motor recovery after *munzij Mus'hil* and massage therapy, more than 70 percent of subjects report full or fair recovery while very few only 2 of 30 patients do not show any improvement in motor recovery after therapy. There is not any change recorded in safety parameters which establish that the drug is safe to use.

Conclusion and Interpretation

The study reveals that the *munzij Mus'hil* and massage therapy is beneficial in post stroke motor recovery and revalidates unani concept of *tanqia* and *tadeel*, since no adverse effects is reported this conclude that the drugs used are safe. Post stroke disability management can be effectively treated with unani medicine.

Key Words: Falij, Hemiplegia, Stroke, Munzij Balgham, Roghan Farfiyoon

INTRODUCTION:

Stroke is a neurological syndrome of rapidly developing signs and symptoms of focal loss of cerebral functions due to sudden death of brain cells caused by disturbance in the blood supply to the brain.¹ Hemiplegia is the commonest manifestation and classical sign of stroke.² Stroke is one of the leading causes of death and disability in India. The estimated prevalence rate of stroke in India ranges, 84-262 per100,000 in rural and 334-424 per100,000 in urban areas. The incidence rate is 119-145 per100,000 based on the recent population based studies.³ Majority of stroke survivors continue to live with disabilities, the costs of on-going rehabilitation and long term-care are largely undertaken by family members, which add an additional physical and financial burden to their families.³

In Unani literature Hemiplegia is described as *Falij / Falij e nisfi*; which is an Arabic word meaning “to halve.” In specific meaning, *Falij* indicates paralysis of longitudinal half of the body either starting from the neck sparing head and face or the entire longitudinal half of the body from head to foot. Since *Falij* affects one half of the body and leaves the other half unaffected (healthy), it has been named so by the virtue of dividing the body into two halves; one healthy and the other diseased.^{4,5} The concept of *Falij/ Falij e nisfi* is elaborately mentioned in Unani system of medicine. Hippocrates (*Buqrat* 460-370 BC) was the first to describe the phenomenon of sudden paralysis that is often associated with ischemia of brain. Among other renowned Unani physicians, *Ibne Sina, Jalinoos, Ali Ibn Majoosi, Rabban Tabri, Hakim Azam Khan* have described *Falij* in detail. *Falij* is considered as a disease caused by *Sue Mizaj Maddi* (mostly including *Balgham*)^{6,7} and is treated successfully since centuries by Unani physicians. The method of treatment includes the process of *Ta'deel and Tanqiya* (normalization of temperament and evacuation of morbid matters). *Ta'deel* is brought about by *Munzij Advia* which have properties such as *Tahleel, Taqtee* and *Talteef*. The *Munzij* is followed by *Mus'hil Advia* (Purgatives) having properties to expel the morbid Humours (*Akhlat*) from whole body. After use of *Mus'hil Advia* (Purgatives) *Islahe Mizaj* (rejuvenation) of affected organ is achieved by judicious employment of various *Tadabeer* such as *Dalk* (massage), *Hammam, Riyazat, Takmeed, Nutool, Zimad* etc.^{6,7}

Keeping all these fact in mind an observational clinical study entitled Evaluation of efficacy of poly herbal unani formulations and massage therapy in the management post stroke hemiplegia (*Falij Nisfi*) was designed with the aim of scientifically evaluating the Unani regimen in the management of Hemiplegia/*Falij e nisfi*.

METHODOLOGY

The present study was conducted in Mohammadia Tibbia College & Assayer hospital Mansoor Malegaon from January 2016 to December 2018 after obtaining ethical clearance from institutional ethical committee. A total number of 33 eligible patients were selected for the study (30 completed the trail; 3 drop out on personal reasons) on the basis of following inclusion criteria.

Inclusion criteria:

- Loss of function /weakness/paralysis of one side of the body.
- Hypotonia/ Hypertonia of the muscles of affected limb.
- Absent / Exaggerated reflexes.
- Patients of either sex.
- Age of patient more than 40 years.
- Not any uncontrolled systemic illnesses.
- Non pregnant/ Non lactating women.

Exclusion criteria:

- Acute stroke cases
- Pregnant and lactating women
- Patients with Advanced uncontrolled systemic illnesses
- Patients who fail to give consent
- Co-existent major neurological and psychiatric diseases
- Conditions, where massage is contraindicated e.g. fractures
- History of seizures

Investigations:

To establish the safety of the test drug - Hb%, TLC, DLC, ESR, Blood Sugar-F/PP, Serum Cholesterol, KFT, LFT were done.

The detailed history of patients including the chief complains and other clinical parameters have been noted in the prescribed case record form (CRF). Prior to inclusion for the study a written consent is taken from patients and all were subjected for routine investigations.

Drugs and Dosage:

Following polyherbal unani formulation (*Nuskha e Munzij*)^{6,8} is administered to attain *Nuzj* (concoction).

1. Beekh-e-Kasni (*Cichorium intybus*) 5gm
2. Beekh-e-Karfas (*Apium graveolens*) 5gm
3. Beekh-e-Kibr (*Capparis spiosa*) 5gm
4. Beekh-e-Izkhar (*Cymbopogon jwarancusa*) 5gm
5. Ustukhudoos (*Lavendula stoechas*) 5gm
6. Aslasoos (*Glycerrhyza glabra*) 5gm
7. Parsiyaoshan (*Adiantum capillus veneris*) 5gm
8. Barg-e-Gauzaban (*Borago officinalis*) 5gm
9. Gule-e-Banafsha (*Viola odorata*) 5gm

These ingredients are soaked overnight in 200ml of water; boiled and filtered in the morning. Thus prepared decoction is given on empty stomach twice a day for 14 days; on 15th day *Mus'hil* drugs including *Turbud* (*Operculina tuptum*) 3 gm; *sana-e-Makki* (*Cassia angustifolia*) 6 gm; *Khayar-e-Shambar* (*Cassia fistula*) 6 gm^{6,8} were included in the *Nuskha e Munzij* and is administered for one day, thereafter Morbid humours are purgated/expelled out. This comprises of *Tanqia* phase of treatment. Then after for the purpose of *Tadeel* massage (*Dalak layyin*) with *Roghan-e- Farfiyoon* for 20 minutes daily is exercised for another 15 days. Ingredients of *Roghane Farfiyun* are Suranjan (*Colchicum luteum*), Zanjabeel (*Zingiber officianale*), Jaiphal (*Myristica fragrans*), Peeplamol (*Piper longum*), Malkangni (*Celastrus peniculatus*), Rai (*Brassica nigra*), Farfiyun (*Euphorbia resinifera*) 12.0 gms each, prepared in sesame oil (*Sesamum indicum*) 720.0 ml⁹

CRITERIA FOR THE ASSESSMENT:

Assessment of results is done based on the clinical parameters (subjective symptoms and objective signs) using MRC Grading of Power. The Score can be counted before and after the treatment and results are noticed by the improvement in the scores obtained. The results have been classified in the following way.

MRC GRADING OF POWER

Grade	Muscle Powers
0	Absent
I	Flickering movement
II	Movement with gravity eliminated
III	Movement against gravity
IV	Movement against moderate resistance
V	Normal

Interpretation

Interpretation	Muscle Powers observed
Cured	V/V
Good response	IV/V
Fair response	III/V
Slow response	II/V
Poor response	I/V
No response	0/V

RESULTS:

Observation in 30 patients indicated that the disease affects males more frequently than the females (Table 1). The incidence of the disease is higher in between 51 to 60 years of age (Table 2); Most of the patients are non vegetarian or mix diet taker (Table 3). There is dominance of right sided Hemiplegia (Table 4). There is also dominance of *Balghami Mizaj* is observed (Chart 1). After completion of treatment most of the patient recorded fair/ good response (Table 5 & Chart 2)

S. N.	Sex	No of cases	Percentage
1	Male	21	70
2	Female	9	30
3	Total	30	100

Table 1: Sex wise distribution of patients
n = 30

S.N.	Age group(in yrs)	No of cases	percentage
1	40 -50	6	20
2	51-60	9	30
3	61-70	8	26
4	71-80	5	18
5	81-90	2	6
	Total	30	100

Table 2: Age wise distribution of patients
n = 30

S. N.	Dietary habits	No of cases	Percentage
1	Non vegetarian	10	34
2	Vegetarian	9	30
3	Mixed	11	36
	Total	30	100

Table 3: Showing the dietary habits of patients
n = 30

S.N.	side	No of patients	Percentage
1	Right sided	19	64
2	Left sided	11	36
	Total	30	100

Table 4: Distribution of patients according to the side of Falij-e-nisfi
n = 30

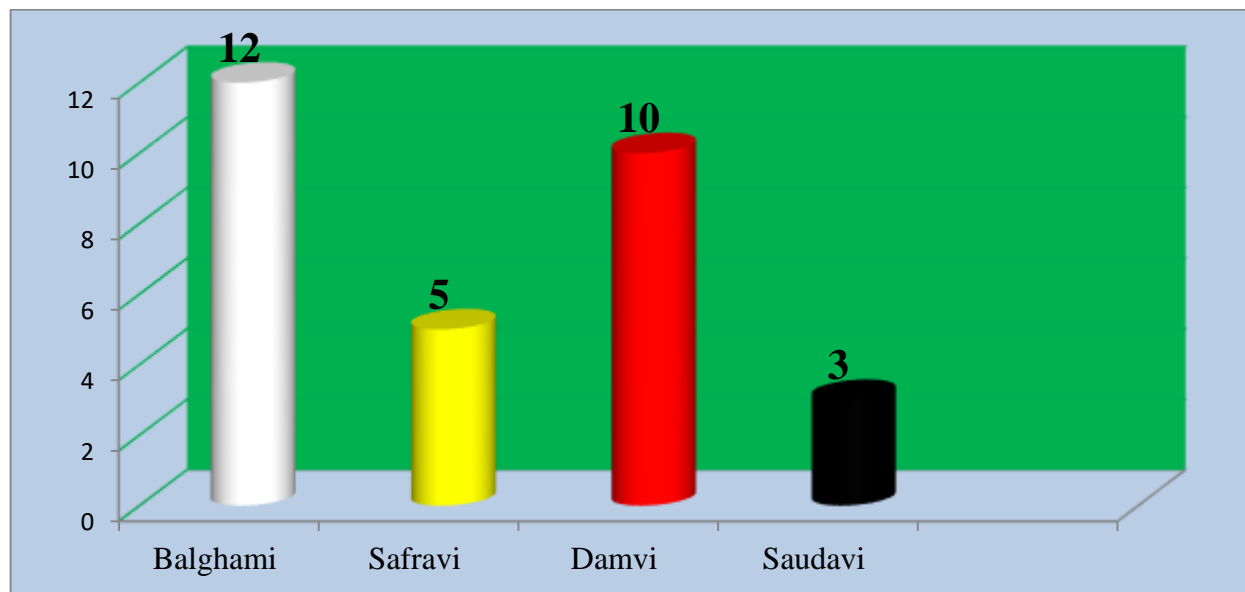


Chart 1: Classification of patients according to Mizaj
n = 30

S .N.	Response	No of patients	percentage
1	Cured	4	14
2	Good response	10	33
3	Fair response	8	26
4	Slow response	4	13
5	Poor response	2	7
6	No response	2	7
7	Total	30	100

Table- 5: Response of Treatment according to MRC Grading of Power
n=30

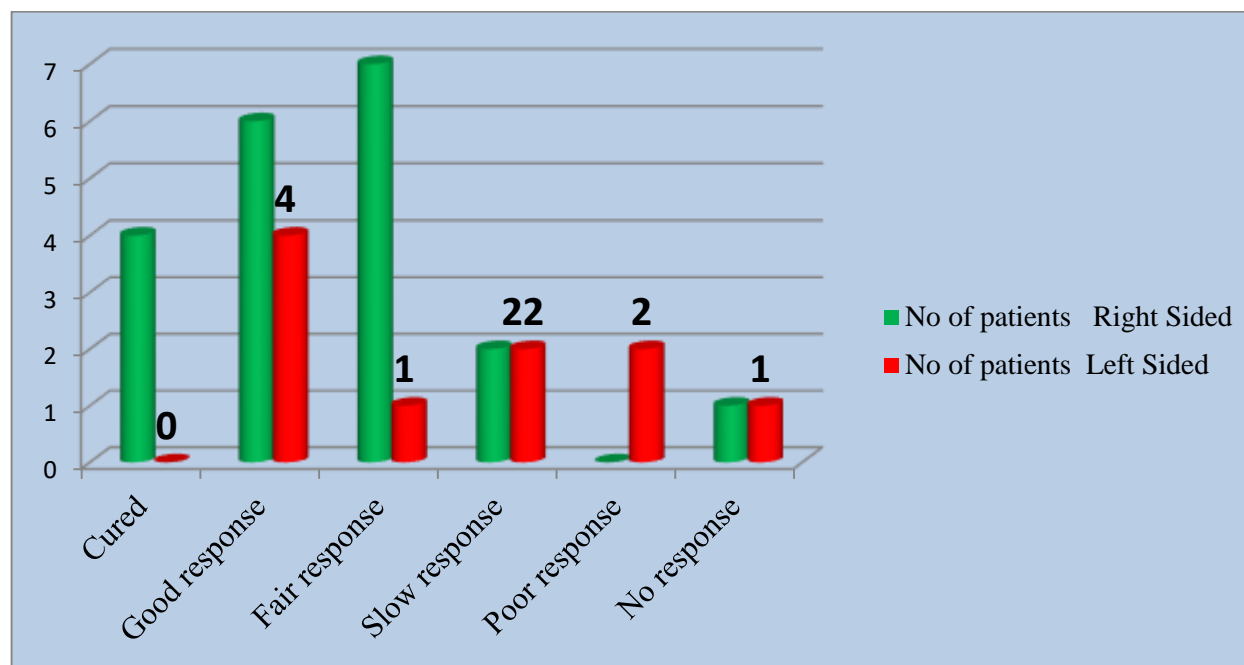


Chart 2: Response of Treatment according to MRC Grading of Power n=30

DISCUSSION AND CONCLUSION

Hemiplegia is one of the commonest manifestations of neurological diseases; ¹⁰ reduced motor power is one of the main reasons of post stroke disability. ¹¹ The goal of treatment is motor power enhancement thus to reduce patient dependency. ¹² In the present study more than 70 percent patients developed fair and good recovery of motor power in all muscles. It can be presumed that *Munzija* and *Mus'hil* drugs owing to their specific neuro-protective activities results in gaining motor power ¹³ and massage with *Roghan farfiyoon* ¹⁴ used as corrective of *mizaj* of organs also provides power due to its *Haar* temperament. The combined therapies viz. *Munzija Mus'hil* and massage provide *Tanqia* and *Tadeel* as stated by previous studies to the patients thus help in improvement of motor weakness. ^{15, 16, 17, 18} These findings are in accordance to previous studies on *Munzija Mus'hil* Therapies.

The outcomes of this study is that *Munzija Mus'hil* therapy with combination to *Dalk* (massage therapy) proved to be effective in the management of post stroke Hemiplegia (*faliy nisfi*) motor weakness and therefore it is essential to carry out further trails on principles of Unani Medicine; so as to relieve the suffering and to obtain more benefits.

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