

Case Report

High Repetitions of Salat (prayer) activity in stroke rehabilitation

Misbah Ghous, Arshad Nawaz Malik

Riphah College of Rehabilitation and Sciences, Riphah International University, Islamabad, Pakistan

Salat activity along with task oriented approach is used as a treatment protocol in stroke rehabilitation. The subject of this report was a 55-year-old woman who had acute ischemic stroke. She had dysarthria with left hemiparesis, hemi sensory loss, hemi neglect. Score on the NIH stroke scale was 21, indicating severe neurological deficit. She exhibited limitations of walking function, impaired balance and strength of

upper and lower limb. For 8 weeks, she underwent a 5-day/week task oriented and Salat (prayer) activity repetition training comprises of 1 hour. After 8-weeks exercise program, major improvement occurred in overall body strength, balance, gait, walking endurance and functional mobility of the patient. (Rawal Med J 201;42:604-604)

Key Words: Stroke rehabilitation, salat activity, repetition training.

INTRODUCTION

Stroke is one of the leading causes of disability worldwide.¹ It mostly leaves its victims disabled.² Rehabilitation can minimize the impact of disability.³ Apart from other treatment approaches, salat has significant role.⁴ The primary purpose of adding salat activity in stroke rehabilitation is its beneficial effect to the whole body including heart, spine, memory, concentration, psyche and other cognitive abilities, which are impaired in stroke.⁵ Salat is recognized as a physical activity and improves musculo-skeletal fitness, enhances psychological well-being. Different postures of salat are against the synergistic patterns, which diseased patient adopt after stroke.⁶

CASE PRESENTATION

The case was a 55-year-old female, diagnosed with acute ischemic stroke caused by distal right internal carotid artery occlusion 3 weeks prior to intervention. She had a history of hypertension. Initial assessments indicated complete left-sided hemiplegia, hemi sensory loss with limitations of sitting, standing, walking function, impaired strength of the upper and lower limb muscles. According to Modified Rankin Scale she fell in the category of moderate severe disability. The measures included were, Berg Balance Scale, Motor assessment scale (MAS), Five Times Sit to Stand Test, Time Up and Go (TUG)Test, and Functional ambulation classification scale (FAC). Baseline

assessment was made prior to intervention, at fourth week of therapy and finally at eight week.

Table 1. Various technics employed

Stroke posture	Stroke movement patterns	Salat Posture	Effect of Salat Posture on stroke
Initially Upper extremity flexion pattern	Shoulder adducted, elbow flexed, pronated, wrist and fingers flexed.	Standing	The erect aligned standing has good effect include the weight bearing which reduces spasticity; improve proprioception, effects of physiological standing. Standing is one of hallmark in management of stroke
		Raise Hands to Ear lobes	This activity promotes inhibitory reflex pattern, facilitates the normal movement pattern and prevent from contracture.
		Hold the left wrist with the right hand on the abdomen, above the navel.	This position improves the grip and wrist extension which is one of important component of feeding and Activities of daily life.
Lower extremity Extension Pattern	Hip adducted & extension, knee extended, ankle plantar flexed and inversion	In Rakoooh, where trunk bends and hands on knee joint	This posture provides the activity in trunk muscles to bend. The weight on knee joint with wrist extension has dual effect. First it facilitates and stimulates the quadriceps and knee joint for proper weight bearing. It also enhances the wrist joint stimulation and improves extension activity.
		In Sajada where the whole body bends and weight is on knee and head on floor	This activity increases the blood flow to head which improves the healing and plasticity in brain. It facilitates the weight bearing on hand and also the full extension of all fingers which prevent the contracture at hand and fingers. It improves the weight bearing on knee with flexion which stimulates the activity of knee joint.
		In Tash'had the knees is in full flexion and sitting straight	This posture brings the knee into full flexion and improves the ranges in knee joint. It minimizes spasticity and improves sitting balance.

Table 2. Detailed scores of all the tools employed.

Measures	Baseline scores	Scores at 4 th week	Scores at 8 th week
MAS	5	32	50
TUG	0 sec	36 sec	21 sec
5 *SST	0 sec	35sec	16 sec
Berg Balance	3	28	48
FAC	1	3	5

The intervention comprised salat activity and numerous functional tasks designed to improve the upper extremity and lower extremities. Whole body training protocol provided 1 hour per day, 5 days/week for 8 weeks with maximum repetitions. The goal for each treatment session was to achieve 300 repetitions in a session. Tasks included were stationary bicycling, balance training, gait training in a parallel bar and Salat activity with maximum repetitions. Its various postures were practiced both in sitting and standing positions (Table 1). The marked improvement was observed after 4th and 8th week of treatment (Table 2).

DISCUSSION

The above results show that massed-practice is effective treatment in individuals with stroke, as reported by others.⁷ Regular and maximum practice of skilled motor tasks has been shown to be directly related to enlargement of the cortical representation in corresponding regions of the brain through neuroplasticity.⁸ French et al concluded that the frequency is vital in rehabilitation and in traditional therapy models.⁹

By this work, it has explored that Salat is mental and physical act in where, nearly all muscles of human body become more active than any kind of physical exercise without muscle fatigue.¹⁰ The results of this study are similar to study by Al Abdulwahab et al.⁵ Scientific evidence also supports the notion that even moderate intensity activities, when performed daily, can have some long-term health benefits and Salat is like a free hand exercise which enhances quality of life

Author Contributions:

Conception and design: Misbah Ghous, Arshad Nawaz Malik
 Collection and assembly of data: Misbah Ghous, Arshad Nawaz Malik
 Analysis and interpretation of the data: Misbah Ghous, Arshad Nawaz Malik
 Drafting of the article: Misbah Ghous
 Critical revision of the article for important intellectual content: Arshad Nawaz Malik
 Final approval and guarantor of the article: Misbah Ghous, Arshad Nawaz Malik
Corresponding author email: Misbah Ghous: drmisbahghous@gmail.com
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