

Therapeutic Profile of Stroke Patients Managed with Neuroprotective Regimens

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Abstract

Development of safe and affective neuroprotective drugs for stroke management has been a medical subject for a number of years. Several clinical trials were withdrawn in vainness due to lack of optimum therapeutic outcomes. Nonetheless, recently a number of encouraging facts have highly supported demanding enthusiasm linked to management of stroke. Neuroprotectives have worked in growing window time period of suitability fostering endovascular thrombectomy. Stroke is a notable cause of morbidity and mortality around the globe. Greater understanding of the pathophysiology of neuronal damage in ischemic stroke has created interest in neuroprotection as a managing strategy. Neuroprotection is an increasingly recognized management strategy in ischemic stroke that promises to involvement clinicians in reducing stroke mortality rates and improving the quality of life of survivors.

Keywords: Neuroprotectives; Stroke; Pathophysiology

Items scored on 3 points scale

0=cannot perform

1=Performs partially

3=Performs fully [2].

Purpose: Is to evaluate and assess the graded rate of recovery on Fugal-Meyer Assessment and to classify sensory-motor dysfunction, balance and ability to perform activities [3-5].

Materials and Methods

In therapeutic comparative study, stroke patients (n=425) were included to analyse the degree of neurological improvement with neuroprotective agents. Nearly 99% patients reported for treatment 24 hours to 12 years after an episode of stroke. In therapeutic dose, neuroprotective regimen administered in addition to standardized rehabilitation therapy. Post treatment, patients followed for therapeutic response [6] (Table 1).

Introduction

As per Fugal-Meyer assessment stroke recovery (Post stroke evaluation scale for balance, motor/sensory function and joint functions, helps in follow up of rehabilitation) [1].

Table 1: Post treatment, patients followed for therapeutic response.

Clinical condition	Number of patients	Age of patients	Duration of NISTR* treatment	Stroke patients pre-treatment clinical presentation	Post treatment outcome* as per fugal-meyer assessment*
Polycythemia vera	5	20-40 Years	14-21 Days	Semiconscious-conscious with CVA	1-2*Optimal
Valuvlar heart diseases/including	10	14-55 Years	16-21 Days	Semiconcoius-uncncious with CVA	1-2

rheumatic heart diseases						
Hypertension	80	15-95 Years	10-20 Days	Semiconscious-uncncious with CVA	1-2	
Diabetes mellitus with/without hypertension	120	18-80 Years	14-21 Days	Semiconscious-uncncious with CVA	1-2	
Obesity with/without dyslipidemia	90	25-80 Years	14-21 Days	Semiconscious-conscious with CVA	1	
Alcohol /illicit drugs abuse/smoking	15	30-65 Years	14-21 Days	Semiconscious-conscious with CVA	2	
Post HCV	20	30-60 Years	10-21 Days	Semiconscious-conscious with CVA	1	
Post COVID-19	2	25-50 Years	14-21 Days	Semiconscious-uncncious with CVA	1-2	
Cardio-vascular conditions(coronary artery diseases, septal defects, post-operative Coronary Artery Bypass Graft(cabg), other cardiac repairing procedures [7-8]	50	50-89 Years	14-21 Days	Semiconscious-uncncious hemiplegia with CVA	1-2	
Gillian Barre syndrome	10	30-50 Years	15-21 Days	Semiconscious-conscious with CVA	1-2	
Rheumatoid arthritis/systemic sclerosis, connective tissues diseases [9]	10	50-90 Years	7-30 Days	Conscious with CVA	1-2	

Results

Degree of clinical improvement is correlated with duration of neurological damage. Patient's pre and post treatment outcome evaluated as regards baseline clinical manifestations (immediately after treatment as well as 2 and 3 months after stroke onset) (Figure 1) [10-14].

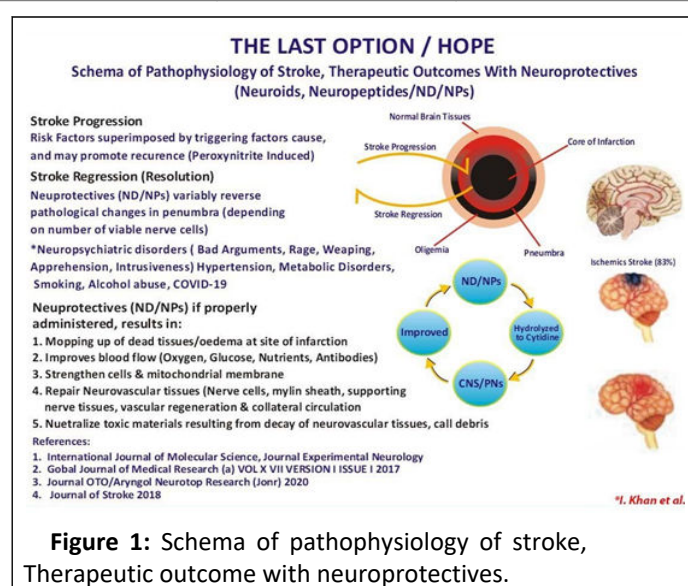


Figure 1: Schema of pathophysiology of stroke, Therapeutic outcome with neuroprotectives.

Discussion

Over the last 2 decades, innovative research has yielded some success in the treatment of patients with acute stroke [15-19]. Resort to an urgent imaging of brain (computerized tomographic scan of brain/magnetic resonance of brain, prompt reperfusion of brain with recanalization and/or neuroprotective drugs after extensive research could benefit stroke patients. Getting through evidence based retrospective data; majority of stroke patients treated with in earlier first hour could have a better outcome [20]. This mandate ground breaking research and modification of health care system in providing timely prehospital treatment. This can be accomplished by regular checkup of blood pressure and sugar. Change in diet, life style [21]. Smooth management of high blood blood pressure, blood sugar use of thrombolytic (aspirin /clopidogril [22-28].

Conclusion

Earlier therapeutic intervention in stroke patients with less degree of neurological damage has better prognostic outcomes than later on.

Clinical Implications: Neuroprotectives as the last hope in stroke treatment, now a days are mandatory to lessen morbidity /mortality outcomes.

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