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QUALITY OF LIFE OF POST STROKE PATIENT: A REVIEW

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Abstract: Stroke is one of the most debilitating conditions contributing to significant disability and death globally.[1] Stroke is one of the most frequent causes of disability worldwide with 4.4 million disability-adjusted life-years lost.[2] Most of stroke is ischemic stroke and based on CT scan of ischemic stroke patients, there are 58,6% subject with lacunar stroke, 20,7% with large artery atherosclerotic (LAA) stroke, and 20,7% with cardio-emboli stroke.

Identifying risk factors for quality of life (QoL) will enable to improve home-based rehabilitation in post-stroke phase [1] Epidemiological studies evident that approximately 5.5 million people worldwide died annually due to stroke with the estimation that the global prevalence of stroke will gradually increase to as high as 21.9% by 2030. The outcome of stroke is often affecting all aspect of individual's life.[2] Stroke is a undoubtedly a disease whose consequences have a considerable impact on the quality of the patient's life. Every year, in a population of one million, approximately 2,400 people will suffer a stroke.[3]

Stroke is often a catastrophic event affecting all aspects of an individual's life. Multiple factors, including age, gender, dependency in activities of daily living (ADL)/disability, social support,16 depression.[4]

The management of post-stroke patient is often sequentially complex. Stroke patients have considerably undergone ongoing and changing difficulties related to their disability, their self-Perception and coping with a new life. Participation in medical stroke rehabilitation is an important determinant of the adaption process in individuals after stroke. Medical stroke rehabilitation enables the patients to be less likely to experience worsening functional ability to perform daily activities. It helps not only to recover physical health but also recover psychosocial aspects.[2]

Keywords: Stroke, Post Stroke Patient, Quality of Life, Factors affecting, Management of Post stroke Patient

I. INTRODUCTION

Stroke is a significant cause of death and disability around the globe. [1]

According to World Health Organization Stroke is defined as "rapidly developing clinical signs of focal (or global) disturbance of cerebral function, lasting quite 24 hours or resulting in death with no apparent cause other than that of vascular origin" In every 6 people will have a stroke in life; 15 million people suffer a stroke per year, from these 6 million people die In developed countries, stroke is a cause for death after cancer and heart condition.[5]

Strokes are the second most common cause of death and functional disability in the world, with the highest incidence in East Asia and Eastern European regions (Gorelick, 2019; Johnson et al., 2019). [6]

Quality of life (QoL or QOL) is the perceived quality of an individual's daily life, that is, an assessment of their well-being or lack thereof. This includes all emotional, social and physical aspects of the individual's life. In health care, health-related quality of life (HRQoL) is an assessment of how the individual's well-being may be affected over time by a disease, disability or disorder. [7]

There are multiple factors which shows that anxiety, emotionalism, posttraumatic stress disorder. About one third of surviving patients experience depression at a certain period. However, this tends not to be diagnosed in time or else is insufficiently treated. Emotional problems relating to stroke can include fear, anxiety, frustration, loss of trust, feeling of loss, uncertainty and disappointment at not regaining health. [3]

The care of patients with stroke begins in the hospital and continues in the community, where recovery, reintegration, and health maintenance take place over the years that follow. Primary care, like all medical specialties, needs to bridge the evidence-practice gap and ensure that every patient receives guideline-recommended care. Unmet needs for physical rehabilitation, activities of daily living, mobility, pain control, and communication remain prevalent. Many factors beyond the control of primary care clinicians contribute to shortfalls in poststroke care, including social factors (eg, lack of health insurance, lack of access to care for other reasons, social isolation, structural racism), lack of perceived benefit from therapy, or fear of side effects. However, effective communication by primary care clinicians can improve adherence with effective care by boosting motivation with accurate information and encouragement, and by overcoming language, cultural, and health literacy barriers.[8]

However, the use of advanced medical technology significantly reduced the case fatality in the acute stage of stroke. Still, maintaining or improving optimal quality of life (QoL) of stroke patients remains a challenge for health professionals in developing countries, including India.[1]

II. Quality of Life of Post Stroke Patient

Stroke is often a catastrophic event affecting all aspects of an individual's life. [9] Health-Related Quality of Life (HRQOL) is quality of life suffering due to a disease, or health condition, or health care intervention on the individuals' subjective experience in social, psychological, functional, and cognitive processes.[5]
The concept of HRQOL is essential within the assessment of the multiple impacts of a stroke on the patient's life and evaluation of their health states. HRQOL measures encompass physical, emotional, social, and subjective feelings of patients and hence, utilized in identifying prioritizing areas, evaluation of the cost-benefit and effectiveness of prophylactic, therapeutic, and rehabilitative interventions.[5]

III. Factors Affecting Quality of Life of Post Stroke Patient

A stroke is a medical condition in which poor blood flow to the brain causes cell death [10]
There are many factors which leads to poor quality of Life of Post stroke patient Such as depression, cognitive changes, and functional dependence (BI).[1]

Anxiety, emotionalism and posttraumatic stress disorder. About one third of surviving patients experience depression at a certain period. However, this tends not to be diagnosed in time or else is insufficiently treated. Emotional problems relating to stroke can include fear, anxiety, frustration, loss of trust, feeling of loss, uncertainty and disappointment at not regaining health. [3]

A low quality of life and a poor psychological state can result in a decrease in the patient's compliance with treatment, which can consequently result in stroke recurrence.[3]

1. Depression a commonly reported consequence of stroke and is seen in 25–50% of patients. The Diagnostic and Statistical Manual (DSM-IV-TR) defines post-stroke depression as "a mood disorder due to a general medical condition (i.e. stroke) that is judged to be due to the direct physiological effects of [that] condition". Post-stroke depression may involve depressed mood and decreased interest and pleasure that impairs social and occupational functioning, but does not necessarily need to meet the full criteria of a major depressive disorder. [10]
   The incidence of post-stroke depression peaks at 3–6 months and usually resolves within 1–2 years after the stroke, although a minority of patients can go on to develop chronic depression. The diagnosis of post-stroke depression is complicated by other consequences of stroke such as fatigue and psychomotor retardation – which do not necessarily indicate the presence of depression. Loss of interest in activities and relationships should prompt an evaluation for depression.

2. Lateral Medullary Syndrome also known as Wallenberg's syndrome, is caused by blockage of the posterior inferior cerebellar artery (PICA) or the vertebral arteries. Signs and symptoms include decreased pain and temperature on the same side of the face and opposite side of the body compared to the lesion, ataxia on the same side of the lesion, and Horner's syndrome on the same side of the face.
3. Apraxia: An uncommon, less understood result of stroke is a condition called apraxia. This condition was initially recognized as: 'Disorders of the execution of learned movements which cannot be accounted for by either weakness, incoordination, or sensory loss, nor by incomprehension of, or inattention to commands. Several forms of apraxia are recognized. Limb-kinetic apraxia is the inability to make precise or exact movements with a finger, an arm or a leg. idiometer apraxia is the inability to carry out a command from the brain to mimic limb or head movements performed or suggested by others.
4. Post Stroke Pain Syndrome: Chronic pain syndromes are common in about one half of stroke patients. Central post-stroke pain (CPSP) is neuropathic pain which is caused by damage to the neurons in the brain (central nervous system), as the result of a vascular injury. One study found that up to 8% of people who have had a stroke will develop central post-stroke pain, and that the pain will be moderate to severe in 5% of those affected.[7,9] The condition was formerly called "thalamic pain", because of the high incidence among those with damage to the thalamus or thalamic nuclei.[10]
5. Physical Factors:
    a. Functional Disability: The severity of functional disability, including impairments in mobility, activities of daily living, and pain, significantly impacts QoL.
    b. Post-Stroke Complications: The occurrence of post-stroke complications, such as spasticity, dysphagia, and urinary incontinence, can negatively affect QoL.
    c. Fatigue: Post-stroke fatigue is a common and persistent symptom that contributes to decreased QoL.
    d. Neurological Deficits: The presence of residual neurological deficits, such as hemiparesis, aphasia, or cognitive impairment, can have a profound impact on QoL.[11]
6. Psychological Factors:
    a. Depression and Anxiety: Post-stroke depression and anxiety significantly affect QoL, leading to emotional distress and impaired social functioning.
    b. Cognitive Impairment: Cognitive deficits, including memory loss and executive dysfunction, contribute to reduced QoL and functional independence.
    c. Self-Efficacy and Coping: Individuals with higher self-efficacy and effective coping strategies tend to have better QoL outcomes post-stroke. [12, 12]
7. Social Factors:
    a. Social Support: Adequate social support, including assistance from family, friends, and healthcare professionals, positively influences QoL. [9]
    c. Caregiver Burden: The well-being of caregivers and their ability to provide support impact the QoL of post-stroke patients. [13]
8. Demographic and Clinical Factors:
    a. Age and Gender: Advanced age and female gender have been associated with lower QoL scores in post-stroke patients.
    b. Socioeconomic Status: Lower socioeconomic status is linked to poorer QoL outcomes following stroke.
    c. Stroke Severity: Cognitive impairment and memory dysfunction following stroke diagnosis are common symptoms that significantly affect the survivors' quality of life [9,14]

IV. Management of Post Stroke Patient

The primary goals of stroke management are to reduce brain injury and promote maximum patient recovery. Rapid detection and appropriate emergency medical care are essential for optimizing health outcomes. [15]

The management of post-stroke patient is often sequentially complex. Stroke patients have considerably undergone ongoing and changing difficulties related to their disability, their self-perception and coping with a new life. Participation in medical stroke rehabilitation is an important determinant of the adaption process in individuals after stroke.9 Medical stroke rehabilitation enables the patients to be less likely to experience worsening functional ability to perform daily activities. It helps not only to recover physical health but also recover psychosocial aspects.[2]

The management of post-stroke patients involves a comprehensive approach aimed at maximizing recovery, preventing complications, and promoting long-term well-being. Key aspects of management include medical treatment, rehabilitation, lifestyle modifications, and long-term support.[16]

Medical treatment focuses on stabilizing the patient, preventing further brain damage, and managing risk factors. This may involve the use of thrombolytic medications or mechanical clot retrieval procedures for ischemic stroke, as well as the management of blood pressure, cholesterol levels, and other relevant conditions.[16,17]
Rehabilitation plays a crucial role in helping stroke survivors regain lost abilities and improve functional outcomes. It encompasses physical therapy to enhance mobility and strength, occupational therapy to facilitate daily activities, speech therapy for communication and swallowing difficulties, and cognitive therapy to address cognitive impairments.[18]

Lifestyle modifications are essential to reduce the risk of recurrent strokes and improve overall health. These include adopting a healthy diet, engaging in regular physical activity, managing weight, quitting smoking, limiting alcohol intake, and controlling other risk factors such as blood pressure and diabetes.[17]

Emotional and psychological support are crucial for stroke survivors who may experience depression, anxiety, or adjustment difficulties. Providing counseling, support groups, and involving family members can aid in their emotional well-being and adjustment to life after stroke.[9,19]
Long-term support involves regular follow-up visits, monitoring of risk factors, adherence to medications, and ongoing rehabilitation as needed. Preventive measures include managing risk factors, promoting healthy lifestyle habits, and creating a safe home environment.[19]

V. Conclusion

The quality of life of a post-stroke patient can vary depending on several factors, including the severity of the stroke, the extent of physical and cognitive impairments, the availability and effectiveness of rehabilitation services, and the individual's overall health and support system.

In many cases, post-stroke patients face challenges and limitations that can significantly impact their quality of life. Physical impairments such as paralysis, muscle weakness, and coordination difficulties may make it difficult for individuals to perform daily activities independently, resulting in a loss of mobility and a decreased sense of autonomy. Cognitive impairments, such as memory loss, difficulty with attention and concentration, and language difficulties, can also affect a person's ability to communicate, participate in social activities, and maintain relationships.
However, it is important to note that with appropriate medical care, rehabilitation, and support, many post-stroke patients are able to improve their quality of life and regain some degree of independence. Rehabilitation programs, including physical therapy, occupational therapy, and speech therapy, can help individuals recover lost functions and develop strategies to cope with persistent challenges. Assistive devices and technologies, such as mobility aids, communication aids, and home modifications, can also enhance independence and improve daily functioning.
Moreover, emotional support and social connections play a crucial role in the quality of life of post-stroke patients. Family support, involvement in support groups, and engagement in meaningful activities can help

individuals cope with the emotional and psychological impact of stroke, reduce feelings of isolation, and enhance overall well-being.

It is worth noting that every post-stroke patient's experience is unique, and the quality of life outcomes can vary widely. Some individuals may experience significant improvements and adapt successfully to the challenges posed by their stroke, while others may face ongoing difficulties and require long-term care and support. Therefore, a comprehensive and individualized approach to post-stroke care is essential to optimize the quality of life for each patient.

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