STROKE REHABILITATION IN PAKISTAN: WHAT WE KNOW AND WHAT WE NEED TO DO?

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Stroke is one of the leading causes of adult neurological disability all around the globe. There have been some remarkable improvements in the acute management of stroke. These include the use of thrombolysis, development of radiological investigations including computerized tomographic scan and magnetic resonance imaging and establishment of acute stroke units. There have been some promising advances the field of stroke rehabilitation as well in the last three decades. These advances have allowed stroke survivors to maximize their mobility, reduce the disability and a better community re-integration which ultimately results in a better quality of life (QOL) and productivity. These include the concept of multi-disciplinary team (MDT) approach, very early mobilization, constraint induced movement therapy, noninvasive brain stimulation, virtual reality, partial body weight assisted gait training and use of robotics in stroke recovery and rehabilitation [(1,2)]. Stroke rehabilitation is defined as a "progressive, dynamic, goal-oriented and coordinated process involving a multidisciplinary approach aimed at enabling a person with impairment to reach his or her optimal physical, cognitive, emotional, communicative and social functional level [(1)]. Early admission to a comprehensive rehabilitation program is associated with better outcome at discharge and shorter length of stay [(1)]. In addition patients treated in stroke units offering comprehensive acute care and coordinated post stroke rehabilitation have better out comes [(2)]. The management in a stroke rehabilitation unit confers survival benefits up to 10 years after stroke [(1)]. Ideally stroke rehabilitation should be provided by a MDT consisting of different physicians and health care professionals. The team members can vary depending upon the availability and local resources. The essential members include the neurologist, rehabilitation medicine physician, rehabilitation nurse, physical therapist, occupational therapist, speech and language pathologist, clinical psychologist and vocational counselor/ re-settlement coordinator. Unfortunately most of these advances in stroke rehabilitation are mostly available only in the developed regions of the world. Stroke rehabilitation is underdeveloped in most of the low resourced countries including Pakistan. It is often confused with physiotherapy rather than a concept of a multidisciplinary team (MDT) approach. Stroke rehabilitation services are poorly developed in Pakistan with only few centers offering MDT stroke rehabilitation. There are less than fifty qualified rehabilitation medicine physicians in Pakistan and most of them are working in the armed force thus limiting the scope of services they can provide to the general population [(1)]. Even health care professionals are unaware of the importance of an early referral for stroke rehabilitation and patients are discharged to home with only advice for physiotherapy and exercises. The stroke rehabilitation being provided in the country mostly consists of physiotherapy and gait training with no MDT assessment. This ignores important issues like evaluation for dysphagia and communication disorders, screening for post stroke depression, provision of orthotics for foot and wrist drop, medical management of spasticity and evaluation for job placement and community re-integration. This results in sub-optimal outcomes, prolonged morbidity, compromised mobility and prolonged dependency on care givers. These ultimately increase the burden of disability in the society. There is need to increase the awareness about stroke rehabilitation among the public and health care professionals in Pakistan.This can be achieved by holding public seminars, workshops on stroke rehabilitation and incorporating stroke rehabilitation lectures in the under and post graduate training programs Stroke rehabilitation services should be integrated with acute stroke care as a continuum of care in order to improve the outcomes in stroke survivors in Pakistan. This requires input and commitment from different professionals involved in the stroke management and rehabilitation phase. There should be a close collaboration and cooperation among the neurologists and rehabilitation medicine physicians. Rehabilitation medicine traineeshave a two month mandatory rotation in neurology in their structured training program. It is recommended that neurology trainees should also do elective rotations in rehabilitation medicine to learn the principles of neurorehabilitation and value of early dedicated stroke rehabilitation. Stroke patients should not be discharged to home or sent to a physiotherapist. Instead a referral should be made to the rehabilitation physician for comprehensive stroke rehabilitation and MDT assessment by different professionals.Patient counseling and family education is of utmost importance which is mostly neglected in

Pakistan. A referral to stroke rehabilitation will ensure patient counseling and family education regarding the disease process and expected outcomes. Stroke rehabilitation might not result in reversal of the permanent impairment but it helps in community re-integration and a better QOL. As Abraham Lincoln said “In the end, it's not the years in your life that count. It's the life in your years.

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