INVITED ARTICLE

MANAGEMENT OF STROKE IN THE ELDERLY

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ABSTRACT

Stroke management involves prevention, management of the acute stroke and rehabilitation.

Hypertension is probably the most important controllable risk factor in stroke, both ischaemic and haemorrhagic.

In the acute stroke, there is as yet no effective medical treatment. Care in the acute phase is mainly supportive with attention to airways, feeding, skin, bowel and bladder care.

Rehabilitation aims to maximise the patient's natural recovery and to help him adapt to any residual disability. It involves a multidisciplinary team approach. An accurate and comprehensive assessment of the patient is important to enable the team to set realistic goals. Goals set usually involve functional end-points. The type of community and home support available will influence decision of whether patient could be discharged home.

Ideally a patient should be rehabilitated back into his community and support of carers is important if they are to continue with their caring role.

Keywords: Stroke, rehabilitation, elderly.

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Stroke management can be discussed under 3 main headings:
(1) Prevention of stroke
(2) Management of the acute stroke
(3) Rehabilitation

(1) Prevention of Stroke[1]

A number of epidemiologic studies in the last ten years have shown a decreasing frequency in both thromboembolic cerebral infarcts and cerebral haemorrhage. The fact is we are still not certain what is responsible for the apparent decline in stroke incidence, how much of it is factitious and how much real, and what causes the real portion.

Hypertension is probably the most important controllable risk factor in stroke, both ischaemic and haemorrhagic.

Other risk factors are well known but not easily modifiable. These include transient ischaemic attacks (TIAs), cardiac disease of almost any sort, cardiac valvular disease with and without cardiac arrhythmia, and diabetes.

Discretionary risk factors include cigarette smoking and heavy alcohol consumption.

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The influence of diet upon stroke incidence remains controversial. Diet-induced hyperlipidemia is a potent risk factor for coronary and peripheral vascular atherosclerotic disease but seems to have less influence on disease of the cerebral arteries. One study suggests that diets high in animal protein and saturated fats are protective against stroke[2].

(2) Management of the Acute Stroke

Effective medical treatment for the acute stroke is sadly lacking. A report on the use of intracarotid urokinase with thromboembolic occlusion of the middle cerebral artery in a small group of patients appears promising[3].

Age is an adverse factor in prognosis in the acute stroke. Early mortality increases markedly with advancing age[4].

Care in the acute phase is mainly supportive with attention on airways, feeding, skin care, bowel and bladder care.

Where supportive community services are available, when prognosis is poor, following explanation, the family may want to keep their patient at home. Patients with minor stroke and TIAs can also be treated at home.

Blood pressure rises in the first 48 hours after a stroke. It is important not to reduce this too rapidly as this may cause the infarcted area to expand.

(3) Rehabilitation of the Stroke Patient

Stroke is a devastating disease affecting both patient and carer.

The rehabilitation of stroke patients presents an enormous challenge to both health professionals and the community. The condition is common and the functional consequences often serious. But in view of the enhanced longevity of post-stroke patients (more than half survive seven years) and the proven benefits and cost-effectiveness of rehabilitative therapy, the widespread availability of such programmes is clearly desirable[5].

Rehabilitation aims to maximise the patient's natural recovery and to help him adapt to any residual disability[6].

Therapy may be beneficial in several ways:
(a) Preventing complications

(b) Teaching new adaptive methods
(c) Ensuring that appropriate aids are given and used correctly
(d) Retraining the damaged nervous system
(e) Preventing or overcoming 'learned no-use'[5]

Rehabilitation involves a multidisciplinary team approach. It should ideally take place 24 hours a day, with common goals set out by the team. The co-ordinated team approach to rehabilitation was identified as an important factor in the achievement of independence in self-care[7].

The principles of rehabilitation will be outlined. It should involve the following steps:

(i) Assessment of the stroke patient
(ii) Setting realistic goals
(iii) Discharge plans
(iv) Maintenance therapy/Continuation of rehabilitation in the Community

(i) Assessment of the Stroke Patient

There are eight aspects that need to be looked into. They include

- Medical
- Cognition
- Communication
- Motor and sensory function
- Daily activities
- Housing
- Social function
- Emotional state[5]

Although the patient should be assessed as 'whole' person, certain aspects are best assessed by a particular team member. For example, in complex speech difficulties, the assessment by the speech therapist will help the other team members understand the patient better.

A full assessment together with knowledge of the patient's pre-morbid status is necessary as it can then allow the team to set realistic goals.

(ii) Setting of Goals

It is important to set goals, so that patient and team members are working towards a common aim. Such goals usually involve functional end-points.

Goals have to be realistic to prevent disappointment and poor morale in the team.

Examples of 'goals' include 'aiming for wheelchair independence', or 'to be fully independent in self care'.

It is often wise to set a time scheme for the achievement of goals as this will allow the team to assess if progress has been as expected or if the initial goal had been unrealistic.

(iii) Discharge Plans

Together with the setting of goals, it is realistic also to look early into discharge plans. Goals are often set with discharge in mind. The type of community and home support available will influence the decision whether a patient could be discharged home.

A severely disabled patient can be looked after in his own home if there is good community and home support.

An early home visit by the occupational therapist may throw light as to whether the patient could cope on discharge or if home adaptation such as suitable rails need to be installed.

Part of the plan in discharge should also involve the carers. It is important that carers are aware of the goals of therapy and work together with the team. They should be given practical advice on the future care of the patient. In more disabled patients, proper techniques of transferring the patient and advice on basic care will help in relieving carer's stress. Specific problems in individual patients need to be conveyed to the carers to allay anxiety and to promote understanding and co-operation.

For example, in a patient with aphasia, family members should be given a non-technical understanding of the nature of the patient's language difficulties, as well as suggestions for communicating with the patient most effectively.

(iv) Maintenance Therapy/Continuation of Rehabilitation in the Community

Therapy should be continued once the patient is discharged home.

The aim is to maintain whatever function has been achieved and secondarily to optimise any further recovery which may still be possible.

This can be done by the domiciliary therapists where available or in the Day Hospital settings. In Singapore, a large part of this is undertaken at the Senior Citizens' Health Care Centres (SCHCC) for the more ambulant and by the nurses from the Home Nursing Foundation for those who are non-ambulant or have difficulty in getting to the SCHCC.

An important aspect of stroke rehabilitation involves the integration of the patient back to the community. For various reasons, the stroke patient and the family may become socially isolated. Stroke clubs, which are usually run by voluntary bodies, have made a major contribution to these long term problems. They allow the sharing of information, mutual help, and social interactions. They also play an important role in providing psychological support for the carers[3].

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