

Admission delays to the stroke unit

Patients with suspected stroke should be transported without delay to the nearest medical centre with a stroke unit that can provide ultra-early treatment [1]. One of the outermost relevant factors to successfully treat patients with acute ischaemic stroke is early admission in an adequate setting. Intravenous thrombolysis is, up to the present, the unique pharmacologic treatment that proved to be highly effective for a large number of patients with acute ischaemic stroke in the early acute phase. When it was showed the first time in a controlled randomised trial, the investigators used a protocol that allowed treatment up to three hours only for every second patient; the other part had to be treated within 90 minutes after symptoms' onset [2]. Meanwhile it is well known and widely accepted that the effect of the intravenous thrombolysis is vanishing over time. For every hour of delay there is a loss of efficacy, measured by odd's ratio for a favourable outcome (modified Rankin Scale 0–2). The chance for a good outcome is estimated by an odd's ratio of 2.8 when treated with i.v.-thrombolysis within 90 minutes, of 1.5 when treated within 180 minutes, and of 1.4 when treated within 270 minutes respectively [3]. One of the most important findings was that the outcome in patients treated early, preferably in the first 90 minutes after onset of symptoms, is extremely improved. Hence there is not such a difference between the second and the third 90-minutes interval, and beyond 4.5 hours the effect may no longer be evident.

With these facts in mind, Sekoranj and colleagues tested within their observational study of admission delays to the stroke unit of the university hospital of Geneva the reasons for delay in admission.

They analysed the different steps of hospital admission in stroke patients using a patient questionnaire and where applicable, interviewing the referring physicians. One of the main results was, that direct referral initiated from the patients or their relatives by dispatching ambulance transport was the most suitable way of hospitalisation. It has to be considered that the model used is true for an urban region. Anyway it will have important consequences if this knowledge should be distributed within the community. It is mandatory that in each community, a network of stroke units or, if stroke units are not yet available, a network of medical centres providing organised acute stroke care should be implemented and made publicised to the general population, health professionals and the emergency transport systems [4]. Further they were able to show, that awareness of stroke by the patient or its relatives was associated with shorter delays. Delays occur if the symptoms are not recognised and a "wait and see" attitude is adopted. It has already been recognised that information and educational initiatives should therefore be directed to both, such

as to persons at high risk of stroke and as well to those around them [5].

It is amazing to see that answers from family physicians showed that one third considered stroke as an emergency, only one fifth recommended an immediate transfer of the patient to the hospital for a potential thrombolysis, not more than one tenth organised the emergency transport themselves. This contrasts to a recent study from German primary care physicians, were approximately three quarters of physicians considered stroke as an emergency in any condition [6]. Actually it was recommended by the European Stroke Organisation that if a physician receives a call or consultation from a patient with suspected stroke, he or she should recommend or arrange transportation, preferably through the EMS system, to the nearest hospital with a stroke unit providing organised acute stroke care and ultra-early treatment [7]. Ambulance dispatchers should inform the stroke unit and describe the patient's clinical status. Proxies who can describe symptom onset or the patient's medical history should accompany the patient.

This important paper shows that much more has to be done to achieve efficient and prompt hospitalisations for acute stroke victims in our country.

References

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