

Perspective

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Public Knowledge about Stroke

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Abstract

Decreasing time interval between onset of symptom and emergency admission is key in the treatment of stroke and it is depending on patients and their family knowledge about stroke symptoms and how and where must take patients. Studies suggest that long-term training is needed to achieve the desired results. Previous studies have shown that knowledge of stroke among patients and society is weak. To increase public awareness of stroke, broader public education is needed.

Keywords: Ischemic stroke; Knowledge; Public

Introduction

Nowadays stroke is a serious health problem in the community [1]. Stroke is the second cause of death in the world and is an important cause of chronic disability [2]. But recent advances in the treatment of acute ischemia, hoping to offer a reduction in devastating effects of it [3,4]. Primary prevention is an important way to reduce the prevalence, recurrence, disability and death from stroke [5,6]. It is reported that information about risk factors for stroke prevention could have the first role [7]. Quick presence in the hospital emergencies after the onset of stroke symptoms will depend partly on the degree of knowledge [8]. Reduce the period of time from stroke onset to admission to hospital emergencies and reduce the risk is depending on the knowledge of patients, family members and the general population [9-11]. But most patients due to lack of information about stroke, visit the hospital emergencies latter.

Community Knowledge

Alberts et al. [12] show that, increase knowledge of stroke which means general education and practice can reduce interval of presentation in the emergency department.

Pandian et al. [13] was evaluated knowledge of 942 people of northwest of India, they found that 45% of them did not recognize brain as an organ is influenced by the stroke. 23% of participants were unaware of a danger signal of stroke as well as 21% of them also had no ability to identify a risk factor. Another study about the general population aware of the symptoms and risk factors for stroke in India, New Delhi, with 476 people in the 2012 survey showed that educated young people with higher incomes had more general information about the stroke than others [14].

Teuschl et al. [15] stated that the time is necessary for the treatment of acute stroke. Their study included 182 people and shows that education and social status of the population had no significant relation with a short delay up to starting treatment. Moreira et al. [16] were studied about the General knowledge about stroke/acute ischemic attack and fast performance in the urban and rural populations. They have compared 347 urban participants on average, younger than 316 rural participants (46-51 years old). Education and urban environment increase the likelihood of initial contact with the emergency while age had the opposite effect.

A study in Ireland confirms that there are disruption and huge gaps in knowledge and awareness of warning signs of stroke and necessitating emergency contact and seeking potential interventions. These factors caused a delay in seeking medical care [17]. The other study in Hungary documented that rural people had less information about stroke [18].

A study in Greece reports that older people recognize the symptoms and risk factors better and there is a positive correlation between awareness of the symptoms and aware of the risk factors. Near to half of the peoples choose contact with EMS and near half choose to visit the hospital [19] but on the other hand the study in Ireland did not find significant differences in the response of female to male. And elderly people in rural areas had less information in the field of stroke [20].

Public Education

Alberts et al. [12] have a multi-faceted program to educate the public and professionals to reduce delays in the presence and treatment of patients. The program attempts to identify the symptoms of stroke. The program includes 1) Television and radio interviews 2) newspaper 3) articles addressing the local and regional primary care physicians and emergency 4) e-mail to thousands of doctors and 5) Having a neurologist on call 24-hour. Since the beginning of the training program, 139 of 159 patients (86%) with cerebral infarction within 24 hours of the onset of symptoms primarily were taken to hospital in Compared with people, before starting this training, only 70 of 187 (37%) were referred. They concluded that educational programs aimed at public and health professionals to recognize the signs of stroke decreases time interval in admitting in the hospital.

Stern et al. [21] looked at the impact of audio-visual training programs to increase knowledge of stroke risk factors, warning signs

and take the necessary steps to create danger signs. Training of health workers is effective than the general population [22].

Media

TV increased knowledge of both males and females, as well as in those with less than high school education, but it was not effective in people older than 65 years. Intermittent low-value TV ads were effective as well as the continuous and high value [23]. Fogle et al. in their study conclude that media is so effective in young people and female than others [24] and also Bray in Australia conclude that multimedia can increase knowledge about stroke in population [25].

Conclusion

Studies suggest that long-term training is needed to achieve the desired results. Previous studies have shown that knowledge of stroke among patients and society is weak. To increase public awareness of stroke, broader public education is needed.

Recommendation

It is better to have posters in most of the hospital entrance which readable from far and also have TV and multimedia short presentation about risk factors and symptoms and value of early presentation in an emergency. These attempts can promote knowledge, of course, if it is continuing.

References

- Davis S, Lees K, Donnan G (2006) Treating the acute stroke patient as an emergency, Current practices and future opportunities. Int J Clin Pract 60: 399-407.
- 2. Murray CJ, Lopez AD (1997) Mortality by cause for eight regions of the world: Global burden of disease study. Lancet 349: 1269-1276.
- The national institute of neurological disorders and stroke rt-pa stroke study group (1995) Tissue plasminogen activator for acute ischemic stroke. N Engl J Med 333: 1581-1587.
- 4. Dr Peter Langhorne (1997) Collaborative systematic review of the randomised trials of organised inpatient (stroke unit) care after stroke Stroke unit trialists' collaboration. BMJ 314: 1151-1159.
- Wolf PA, D'Agostino RB, Kannel WB, Bonita R, Belanger AJ (1988) Cigarette smoking as a risk factor for stroke. The Framingham Study. JAMA 259: 1025-1029.
- Gorelick PB, Schneck M, Berglund LF, Feinberg W, Goldstone J (1997) Status of lipids as a risk factor for stroke. Neuroepidemiology 16: 107-115.
- Pancioli AM, Broderick J, Kothari R, Brott T, Tuchfarber A, et al. (1998) Public perception of stroke warning signs and knowledge of potential risk factors. JAMA 279: 1288-1292.
- Williams LS, Bruno A, Rouch D, Marriott DJ (1997) Stroke patients' knowledge of stroke. Influence on time to presentation. Stroke 28: 912-915.
- 9. del Zoppo GJ, Higashida RT, Furlan AJ, Pessin MS, Rowley HA, et al. (1998) Proact: A phase ii randomized trial of recombinant pro-urokinase

by direct arterial delivery in acute middle cerebral artery stroke. Proact investigators. Prolyse in acute cerebral thromboembolism. Stroke 29: 4-11.

- Donnan GA, Davis SM, Chambers BR, Gates PC, Hankey GJ, et al. (1996) Streptokinase for acute ischemic stroke with relationship to time of administration: Australian streptokinase (ask) trial study group. JAMA 276: 961-966.
- Hacke W, Kaste M, Fieschi C, Toni D, Lesaffre E, et al. (1995) Intravenous thrombolysis with recombinant tissue plasminogen activator for acute hemispheric stroke. The European cooperative acute stroke study (ecass). JAMA 274: 1017-1025.
- 12. Alberts MJ, Perry A, Dawson DV, Bertels C (1992) Effects of public and professional education on reducing the delay in presentation and referral of stroke patients. Stroke 23: 352-356.
- Pandian JD, Jaison A, Deepak SS, Kalra G, Shamsher S, et al. (2005) Public awareness of warning symptoms, risk factors, and treatment of stroke in northwest India. Stroke 36: 644-648.
- 14. Monaliza MA, Srivastava A (2012) Awareness of risk factors and warning symptoms of stroke in general population. Nursing and Midwifery Research 8: 748.
- Teuschl Y, Brainin M (2010) Stroke education: discrepancies among factors influencing prehospital delay and stroke knowledge. Int J Stroke 5: 187-208.
- Moreira E, Correia M, Magalhães R, Silva MC (2011) Stroke awareness in urban and rural populations from northern Portugal, knowledge and action are independent. Neuroepidemiology 36: 265-273.
- 17. Truelsen T, Krarup LH (2010) Stroke awareness in Denmark. Neuroepidemiology 35: 165-170.
- Wiszniewska M, Gluszkiewicz M, Kobayashi A, Wlodek A, Jezierska-Ostapczuk A, et al. (2012) Knowledge of risk factors and stroke symptoms among nonstroke patients. Eur Neurol 67: 220-225.
- 19. Hatzitolios AI, Spanou M, Dambali R, Vraka K, Doumarapis E, et al. (2014) Public awareness of stroke symptoms and risk factors and response to acute stroke in Northern Greece. Int J Stroke 9: E15.
- Hickey A, Holly D, McGee H, Conroy R, Shelley E (2012) Knowledge of stroke risk factors and warning signs in Ireland, development and application of the Stroke Awareness Questionnaire (SAQ). Int J Stroke 7: 298-306.
- 21. Stern EB, Berman M, Thomas JJ, Klassen AC (1999) Community education for stroke awareness: An efficacy study. Stroke 30: 720-723.
- 22. Lecouturier J, Rodgers H, Murtagh MJ, White M, Ford GA, et al. (2010) Systematic review of mass media interventions designed to improve public recognition of stroke symptoms, emergency response and early treatment. BMC public health 10: 784.
- Silver FL, Rubini F, Black D, Hodgson CS (2003) Advertising strategies to increase public knowledge of the warning signs of stroke. Stroke 34: 1965-1968.
- Fogle CC, Oser CS, McNamara MJ, Helgerson SD, Gohdes D, et al. (2010) Impact of media on community awareness of stroke warning signs: a comparison study. J Stroke Cerebrovasc Dis 19: 370-375.
- Bray JE, Johnson R, Trobbiani K, Mosley I, Lalor E, et al. (2013) Australian public's awareness of stroke warning signs improves after national multimedia campaigns. Stroke 44: 3540-3543.