AWARENESS OF STROKE RISK AND SYMPTOMS IN DIABETES PATIENTS

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A survey was conducted with hospitalised patients aged over 18 with type 2 diabetes to establish their awareness of stroke warning symptoms, risk factors and treatment options. Asked which organ of the body was affected by stroke, 41% said the brain; the remainder named other organs or did not know. Respondents named a total of 20 warning symptoms of stroke, with the two most common being sudden paralysis of one side of the body and sudden speech difficulty. Fifty-two per cent of respondents did not know what happened inside the brain when a stroke occurred. More health promotion is needed with patients with diabetes to increase their knowledge of stroke warning symptoms, risk factors, and treatment options.

The risk of stroke in people with type 2 diabetes within five years of beginning treatment is more than double the rate for the general population (Jeerakathil et al, 2007). Studies have reported that diabetes is the strongest risk factor for death from stroke among both men and women (Ho et al, 2003). Alteplase (Actilyse) is recommended for the treatment of acute ischaemic stroke within three hours of onset of the stroke symptoms (NICE, 2007). With the advent of time-dependent therapies, it is important to understand the factors that delay hospital admission for patients with stroke. Reducing the time from stroke onset to hospital presentation and risk reduction in part depends on the knowledge of symptoms and risk factors among patients and their carers and family members.

This article describes a prospective, descriptive study of 100 hospitalised patients with type 2 diabetes. The baseline knowledge level of stroke warning symptoms, risk factors and treatment options are reported and discussed. Implications for nursing practice are highlighted and explored.

A literature review was conducted – for full details see nursingtimes.net. In summary, researchers in North India, Oman, the US, Europe, Korea and Australia have concluded that more health education is needed to improve the knowledge level of stroke warning symptoms, risk factors, and treatment options.

High levels of knowledge are needed to increase the number of patients presenting early to hospital (Schneider et al, 2003; Williams et al, 1997) and for efficacy of secondary stroke prevention (Müller-Nordhorn et al, 2006; Samsa et al, 1997). This is the case in particular among the most vulnerable groups – those known to be at high risk of stroke.

However, no studies of the baseline knowledge of stroke warning symptoms, risk factors, and treatment options in the UK were identified.

AIM AND METHOD

The main aim of the study was to determine baseline knowledge about the warning symptoms, risk factors and treatment options available for stroke in patients with type 2 diabetes. A secondary aim was to describe information resources to a UK-based group.

A prospective survey methodology was used to study patients over the age of 18 years admitted to Oxford Radcliffe Hospitals NHS Trust and being treated with anti-diabetic tablets or insulin for type 2 diabetes. Exclusion criteria included those who were aphasic, delirious, confused, unconscious or severely ill, had a diagnosis of dementia or a learning disability and those who refused to participate in the study. Ethical approval was granted.

Participants were identified by the diabetes nurses or medical team responsible for individual patients’ care. Those who gave consent were interviewed by one of three medical personnel who interrupted only to clarify a response if required and made no attempt to prompt the respondents.

The survey questionnaire, adapted from Pandian et al, consisted of three sections. The first gathered demographic information.
while the other two asked about patient awareness of stroke warning symptoms, risk factors and treatment. All questions were open-ended with options for multiple responses. The questionnaire was pre-tested on a sample of 25 patients.

RESULTS
Participants’ mean age was 69 years (range 16–92) and 53% were male. The majority (79%) reported a primary or secondary level of education only. The majority reported smoking and a minority reported regular alcohol use.

When asked which organ of the body was affected by stroke, 41% indicated the brain, 21% did not know, 18% named the heart, 14% indicated the whole body and the remaining 6% named other organs.

When asked about stroke warning symptoms a total of 20 were named. The three mentioned most commonly were:
- Sudden paralysis of one side of the body in 28%;
- Sudden difficulty in speaking in 17%;
- Sudden blurred or double vision in 10%.

Fifty-two per cent of respondents did not know what happened inside the brain when a stroke occurred. Explanations included: blood vessels or arteries in the brain becoming blocked (clot, 23%); blood vessels or arteries in the brain rupturing (haemorrhage, 14%); and other reasons (fluid collection, swelling, clot and bleed, 11%).

The median number of risk factors for stroke known by patients was two (range 0–6). Twenty-four per cent identified diabetes, and 26% recalled being told by a doctor that diabetes was a risk factor for stroke. If participants knew about stroke, their knowledge came from 13 different sources, the most common being mass media and the least common the internet.

Patients gave a wide variety of answers when asked what they would do first if they or one of their close relatives or a friend had symptoms of stroke. Fifty-seven per cent of respondents would call 999 when they would do and 5% said they would wait and see what happened.

The most common treatment respondents were aware of was aspirin (28%). Only one person knew of the availability of alteplase, the only ‘clot-busting’ drug for acute ischaemic stroke.

DISCUSSION AND CONCLUSIONS
This study found a fairly high level of awareness of stroke being something that affects the brain. The most commonly recognised warning symptom was paralysis of one side of the body (reported by 28% of respondents).

Clearly, healthcare professionals need to spend more time and effort teaching patients with diabetes the warning symptoms of stroke to enable them to present to the hospital in time for newer treatment options.

Printed materials and a video are available from the Stroke Association for teaching purposes (The Stroke Association, 2008). Patients need to know to call 999 when warning symptoms occur as stroke is a medical emergency.

Twenty-three per cent of participants reported that a blood vessel in the brain became blocked when a stroke occurred and 14% reported a blood vessel ruptured; 24% identified diabetes as a risk factor for stroke. It is important that high-risk patients know that diabetes is a risk factor for stroke and physicians inform patients with diabetes of their stroke risk. Both of these need further emphasis in education for those caring for patients with diabetes.

The high rate of smoking (58%) among these patients is a cause for concern. Clearly, this is a group to target for smoking cessation and an inpatient hospital stay is an ideal time for nurses to approach smokers (Rice, 2008). Patients with diabetes need to be made aware that smoking further increases their risk of stroke, already elevated due to their diabetes.

A positive finding in this study was that more than half of respondents would ring 999 for an ambulance if they, a family member or a friend had symptoms of a stroke. Increased public education is needed to increase the number of people who know to ring 999 immediately following the onset of stroke symptoms rather than causing delay by calling the GP or waiting to see what will happen.

The study demonstrates poor knowledge of stroke warning symptoms, risk factors, and treatment options among a sample of patients with type 2 diabetes. It needs to be repeated in an outpatient setting where patients may have different levels of awareness of stroke warning symptoms, risk factors and treatment.

REFERENCES


