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# The Knowledge About Risk Factors of Cerebral Stroke as a Determinant of the Preventive Procedures\*

# Wiedza o czynnikach ryzyka udarów mózgu jako wyznacznik postępowania profilaktycznego

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#### **Abstract**

**Background.** Cerebral stroke are suddenly appearing, more or less intensive, symptoms of focal brain damages (because of a brain circulation disorder) which causes often death or disability. This is a very important social problem, which is preventable.

**Objectives.** The author aimed at evaluation of knowledge about cerebral stroke risk factors as the cornerstone of prophylactic activities.

Material and Methods. Studied material included 50 nurses and 50 patients after a cerebral stroke who filled in an authorial questionnaire.

**Results.** The patients knowledge of risk factors and secondary prevention were less advanced than nurses.

Conclusions. Because of unsatisfying knowledge level, patients should take part in educational programs, which will expand they knowledge about life modifications and necessary control of risk factors (Piel. Zdr. Publ. 2011, 1, 2, 141–143).

Key words: cerebral stroke, knowledge about risk factors.

## Streszczenie

**Wprowadzenie.** Udar mózgu, czyli nagłe wystąpienie mniej lub bardziej nasilonych objawów ogniskowego uszkodzenia mózgu w wyniku zaburzeń krążenia mózgowego jest częstą przyczyną różnego rodzaju niepełnosprawności lub śmierci. Jest to niezmiernie ważki problem społeczny. Ze względu na to, że są znane i opisane czynniki ryzyka zarówno modyfikowalne, jak i niemodyfikowalne, można i należy zapobiegać występowaniu udarów mózgu.

Cel pracy. Ocena poziomu wiedzy czynników ryzyka udaru mózgu jako podstawa do planowania postępowania profilaktycznego.

**Materiał i metody.** Grupę badawczą stanowiło 50 pielęgniarek pracujących na różnych oddziałach i 50 pacjentów, którzy byli rehabilitowani po przebytym udarze mózgu. Narzędziem badawczym była autorska ankieta na temat znajomości czynników ryzyka udaru mózgu.

**Wyniki.** Znajomość poszczególnych czynników ryzyka oraz możliwości profilaktyki wtórnej okazała się znacznie mniejsza w przypadku badanych pacjentów niż pielęgniarek.

Wnioski. Ze względu na niezadowalający poziom wiedzy pacjenci po udarach mózgu powinni brać udział w programach edukacyjnych, które poszerzałyby ich wiedzę na temat możliwości modyfikacji stylu życia i koniecznej kontroli czynników ryzyka (Piel. Zdr. Publ. 2011, 1, 2, 141–143).

Słowa kluczowe: udar mózgu, wiedza o czynnikach ryzyka.

The cerebral stroke (insultus cerebri, ictus cerebri, apoplexia celebri) is a term for unexpected appearance of more or less intensive symptoms of

focal brain damage which is the result of brain circulation disorder. The other term for it is cerebrovascular accident (CVA). Cerebral strokes are tra-

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ditionally classified as haemorrhagic or ischaemial, based on brain infarction. Temporary incidents or ischaemia attacks TIA are classified as a separated group. Approximately about 80–85% of strokes have an ischemial character, 15–20% constitute haemorrhage strokes [4].

Brain stroke is often a reason for over 40 year old people incapacity. Annually, due to brain stroke 4.6 million of people die. The brain strokes incidents level in Poland is over average, but death rate is one of the highest. Mentioned rates justified necessity for applying primary and secondary preventive measures, especially when cerebral stroke risk factors are known. Reducing incidence and premature death because of cardio-vascular diseases, including cerebral strokes is the main aim for national programme of health strategy. Especially when we are going to reduce number of early death because of the cerebral stroke and to attain for at least 70% of those patients, who survive severe period of stroke, ability to do their everyday basic activities [8].

It was proved that in this case primary value for reducing morbidity and lethality is how successful primary and secondary cerebral stroke prophylactic are [3, 4, 6, 7].

Primary prophylactic aim is to reduce cerebral stroke risk in people without any symptoms. Primary prevention rely mainly on affecting modifiable risk factors, which are: arterial hypertension, diabetes mellitus, hyperlipidemia, neck artery constriction, atrial fibrillation, ischemic heart disease, smoking, obesity, less of physical activity and alcohol abuse [3, 4].

Secondary prevention pertain to methods avoiding recurrent disease attack. Its basic elements are: changing the lifestyle, curing stroke risk factors, anti aggregation treatment, using anti-thrombotic drugs, neck artery constriction surgical treatment [3, 6, 7].

It is important to remember that after ischemial stroke recurrence occurs in one year in 6–12% of patients, 40–50% in five years. Also during first 2 years after stroke 15% of patients have a cardiac infarction and 15% die due to vascular causes. The work purpose is evaluation of knowledge about risk factors as the cornerstone of prophylactic activities.

# Material and Methods

Studied material included answers for authors questionnaire. Two groups of respondents were chosen for research aims. One of them are nurses, who were studying at Wroclaw Medical University, employed in health service establishment in

different specifications. Second group are patients after cerebral stroke performing rehabilitation in Rehabilitation Hospital in Zmigrod [2]. 100 persons from Poland took part in research. Research was conducted between February and December 2006. Presenting in details tested population shows that: in group of 50 nurses 100% were subjected to research, in this group there were no males. In group of patients 54% were women and 46% men. Tested people came from both cities and villages.

# Results

Patients after cerebral stroke knowledge about every of modifiable risk factor and deficit information in this subject are much more different than nurses knowledge. Patients usually (88%) choose obesity and less physical activity, then hypertension (70%), smoking and drinking alcohol (66%) as cerebral stroke risk factors. The least familiar cerebral stroke factor is neck artery constriction (30%), also atrial fibrillation and ischemic heart disease (38%), diabetes mellitus, hyperlipidemia (each 42%). Nurses knowledge level in every case was higher: from 78% (atrial fibrillation and ischemic heart disease) to 100% (hypertension as a risk factor).

# Discussion

Cerebral strokes are common reason for focal brain damages and are most superior group of contemporary civilization diseases. Developing knowledge about reasons of stroke, learning about risk factors and implementation successful prophylactic has recently become an important social problem [8]. Obtained findings are affirmed in different research. They also show that information about risk factors and prevention activities is on low level. Higher level of nurses knowledge about risk factors and lifestyle modification possibilities after cerebral stroke allows to educate patients and their families (which take care on patients after stroke) how to prevent another stroke [5].

# **Conclusions**

The level of knowledge about cerebral stroke risk factors is unsatisfactory. Patients after cerebral stroke should take part in educational programs, which will develop they knowledge about they lifestyle modifications and necessary risk factors control.

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