

UNIT 16.

STROKE

Stroke, also called cerebrovascular accident (CVA), is a sudden loss of brain function caused by disturbance in the blood supply to the brain. As a result of lack of oxygen and glucose, brain cells in the affected area die, which impairs the functions this area is responsible for.

Strokes are classified into two main categories: ischaemic and haemorrhagic strokes.

An ischaemic stroke may be due to thrombosis or embolism. In thrombosis, an artery supplying the brain becomes locally blocked by a blood clot (thrombus). In embolism, an embolus is formed elsewhere in the body and travels to the brain vessel, causing obstruction. Apart from coagulated blood, an embolus may include fat, air, or clumps of bacteria.

In a haemorrhagic stroke a blood vessel ruptures within the brain, causing flooding of its tissues.

Signs and symptoms

An easy way to remember and recognise stroke symptoms is the FAST test, which involves asking three simple questions:

Face – can the person smile? Has their mouth or eye corner drooped?

Arm – can they raise both arms?

Speech – can they speak clearly and understand you?

Time is critical. If you observe sudden one-sided weakness in the face or arm, or difficulty using or understanding speech, summon medical help immediately.

Other symptoms of stroke include sudden vision problems, severe or unusual headache, and unexplained dizziness or loss of balance.

Consequences of stroke

There is a wide range of impairments caused by stroke. Most commonly, the patient will experience motor loss on the side of the body opposite to the damaged side of the brain (hemiplegia or hemiparesis). Sensory disturbances, e.g. loss of the ability to

WORDLIST

activities of daily living /æk'tɪvətɪz əv
'deɪli 'lɪvɪŋ/ (ADLs) – czynności
dnia codziennego

aphasia /ə'feɪziə/ – afazja

arachnoid mater /ə'ræknoɪd 'mɪtə/ –
pajęczynówka

assistive /ə'sɪstɪv/ – wspomagany

bedsore /'bedsɔ:/ – odleżyna

cerebrovascular accident
/,serəbrəʊ'væskjələr 'æksɪdənt/
(CVA) – incydent mózgowo-
-naczyniowy

clot /klɒt/ – zakrzep, skrzeplina

clump /klʌmp/ – bryła, zlepek

coagulate /kəʊ'ægjuleɪt/ –
koagulować, krzepnąć

dizziness /'dɪzɪnəs/ – zawroty głowy

droop /dru:p/ – opadać

embolism /'embəlɪzəm/ – zatorowość

embolus /'embələs/ (pl. emboli
/'embələɪ/) – zator, materiał
zatorowy

employ /ɪm'plɔɪ/ – stosować,
zatrudniać

flood /flʌd/ – zalać

gradually /'grædʒuəli/ – stopniowo

haemorrhagic stroke /,hemə'rædʒɪk
'strəʊk/ – udar krwotoczny

hemiplegia /,hemi'pli:dʒiə/ – hemi-
plegia, porażenie połowicze

impair /ɪm'peə/ – upośledzić,
uszkodzić

impairment /ɪm'peəmənt/ – zaburze-
nie, upośledzenie (funkcji)

in order to /ɪn 'ɔ:də tu/ – po to żeby,
w celu

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feel touch, pain, temperature, or position, are also common. Sometimes the patient may also feel pain, numbness or tingling. Other consequences of stroke include aphasia (trouble speaking or understanding language), problems with thinking and memory, and emotional disturbances, such as post-stroke depression.

Post-stroke rehabilitation

The aim of post-stroke rehabilitation is to restore, as much as possible, the functions which have been lost. Its most important components are physiotherapy, occupational therapy (OT) and speech and language therapy (SLT).

Physiotherapy focuses on restoring movement and sensation, and may start right after the condition of the patient has been stabilised. The first step is often positioning – changing the patient's position in bed to reduce the risk of bedsores and improve the muscle tone. Then the therapist may employ passive, assistive, active and finally active-resisted movement, gradually increasing the patient's joint range of motion and muscle strength. The patient relearns functional tasks such as sitting, standing, walking, reaching, and manipulation of objects. The most popular special methods applied in post-stroke rehabilitation are the Bobath therapy and Proprioceptive Neuromuscular Facilitation (PNF).

Occupational therapy concentrates on helping the patient to relearn activities of daily living (ADLs) such as eating, drinking, dressing, bathing, cooking, reading, writing, and toileting. Speech and language therapy helps them to improve oral movement in order to use language, but also to eat and drink. Sometimes it teaches them alternative means of communication.

EXERCISES

I. Answer the questions.

1. Why is stroke also called cerebrovascular accident?
2. What are the main types of stroke?
3. What is the difference between a thrombus and an embolus?
4. What does the acronym FAST stand for? What is the FAST test?
5. What is hemiplegia? Why is it usually a result of stroke?
6. How can a physiotherapist help in post-stroke rehabilitation?
7. What are the aims of physiotherapy and occupational therapy in post-stroke rehabilitation?
8. How are physiotherapy and occupational therapy similar and how are they different?

ischaemic stroke /'ɪski:mɪk ˌstrəʊk/ –
udar niedokrwienny

occupational therapy /ˌɒkjʊˈpeɪʃənəl
'θerəpi/ (OT) – terapia zajęciowa

positioning /pə'zɪʃənɪŋ/ – leczenie
ułożeniowe

Proprioceptive Neuromuscular
Facilitation /ˌprəʊpriə'septɪv
,njʊərəʊ'maskjʊlə fəˌsɪlə'teɪʃən/
(PNF) – proprioceptywne
torowanie nerwowo-mięśniowe

relearn /ri'lɜ:n/ – nauczyć się
ponownie

rupture /'rʌptʃə/ – pęknięcie

sensory /'sensəri/ – zmysłowy

speech and language therapy /ˌspi:tʃ
ənd ˌlæŋgwɪdʒ 'θerəpi/ (SLT) –
logopedia

subarachnoid haemorrhage
/ˌsʌbə'ræknɔɪd 'hemərɪdʒ/ –
krwotok podpajęczynówkowy

summon /'sʌmən/ – wezwać

thrombosis /θrɒm'bəʊsɪs/ – zakrzepica

thrombus /'θrɒmbəs/ (pl. thrombi
'θrɒmbaɪ) – zakrzep

transient ischaemic attack /'trænzjənt
'ɪski:mɪk ə'tæk/ (TIA) – przemi-
jający atak niedokrwienny

II. Complete the sentences.

1. Stroke is a sudden loss of due to impairment of blood to the brain.
2. In an ischaemic stroke, a blood vessel becomes and the brain cannot get enough oxygen and glucose. In a haemorrhagic stroke a vessel in the brain.
3. Symptoms of stroke include one-sided of the face and arm, problems formulating and understanding, sudden problems with (mostly in one eye), dizziness and loss of balance.
4. is partial loss of motor function on one side of the body. It may cause difficulties in activities of daily
5. A stroke patient may experience sensory disturbances such as loss of the to feel touch, pain or, or additional sensations such as numbness or
6. In positioning, a therapist changes the patient's position in bed to minimise the risk of and to improve muscle
7. In the course of rehabilitation, the patient gradually functions lost in the stroke.
8. It is important to re-educate patients to perform functional, such as can be found in everyday life. A good method to aid this process is Proprioceptive Facilitation.

III. Complete the sentences with the right prepositions: *between, by, for, from, in, into, of, on, to, under, up, with*. Some of them will be used more than once.

1. Subarachnoid haemorrhage occurs the arachnoid mater, the brain and the skull.
2. Risk factors for stroke may be classified two groups: modifiable and non-modifiable factors.
3. Stroke is responsible numerous cases disability.
4. His condition was really serious, but fortunately he responded well our therapy.
5. In a stroke, you can observe weakness the face, one side of it.
6. Speech and language therapy concentrates improving communication.
7. After his transient ischaemic attack John gave smoking and started exercising regularly, all order to prevent stroke in the future.
8. Stroke survivors usually have problems movement.
9. Apart motor loss, they may also experience sensory disturbances.
10. Myocardial infarct is caused impairment of blood supply the heart.

IV. Complete the sentences using the Present Perfect tense. Use the provided verbs.

damage, droop, go, have, learn, prepare, see, train

1. This flooding a big amount of brain tissue. This loss is irreversible.

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2. My father high blood pressure for many years.
3. She to hospital! I have no idea how long she'll stay there.
4. The physio a good rehab programme. Let's hope it'll work.
5. Unfortunately Joan (not) since last summer. She'd better keep fit!
6. (you) this dietician yet? She can help you plan healthy meals.
7. Look! The corner of her eye! I'll call an ambulance.
8. Liz feels much better now. She how to walk again!

V. Put the verbs in brackets into their correct forms of Present Perfect or Past Simple.

1. When she couldn't speak, she (communicate) with us writing or using symbols.
2. Fortunately, our Grandma (never, have) any neurological problems.
3. Thanks to rehabilitation she (become) independent again. Now she can live on her own.
4. This accident (happen) three years ago and he still has some problems with movement.
5. When I was walking home, I suddenly (fall) down.
6. I (not, visit) my neurologist since I (feel) numbness in my fingers two years ago.
7. After stroke I (lose) some sensation in my left arm, but now I (regain) it!
8. Where (you, go) for your student's training last summer?