The Invisible Effects of Stroke

Nicole Walmsley
Overview

The objective is to:

1. identify four common **invisible effects of a stroke**

2. demonstrate how nursing staff can **identify these on an acute stroke unit**
Introduction

- Cognition
- Invisible symptoms
- Visual perception
- Fatigue
- Emotion
Consider the Difference

**Hospital**

**Home**
The majority experience cognitive impairment.

(RCP 2016)
Cognition and Post Stroke Cognitive Deficits

- VIDEO
  
  - https://www.youtube.com/watch?v=6Y67e69Y1Zc
### Cognition and Post Stroke Cognitive Deficits

<table>
<thead>
<tr>
<th><strong>Definition</strong></th>
<th><strong>Causes</strong></th>
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<tbody>
<tr>
<td>• Cognition refers to the brain functions for perceiving, thinking, remembering and applying knowledge in the right way</td>
<td>• Localised damage due to stroke</td>
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<tr>
<td></td>
<td>• Infection/ delirium</td>
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<td>• Pre-morbid disease e.g. dementia</td>
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<td>• Mood disturbance</td>
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Spectrum of Cognition

MILD
- Independent
- Orientated
- “Self caring” ward environment

SEVERE
- 1:1
- Disorientated
Why Is Assessing Cognitive Impairment Important?

Associated with:

- Poorer rehab outcomes
- Increased length of stay
- Poorer physical functioning at discharge (RCP 2012)
1. Basic cognitive impairments

- **Information Processing:**
  Slow speed of thinking

- **Attention:**
  Impaired focused, sustained, divide, alternating attention.

- **Memory:**
  Impaired ability to store and retrieve visual and verbal information (short term and long term)

- **Apraxia:**
  Unable to cognitively plan movements (ideational, ideomotor)
2. High level cognitive impairments

• Executive dysfunction:
  Plan, organise, realistically goal set, insight, manage non-routine

• Anasognosia:
  Loss of awareness of their deficits
Neuroanatomy of Cognition

ACA
- Memory
- Abulic symptoms
- Apathy
- Frontal executive impairment
  - Abstract thinking
  - Inhibition
- Apraxia

Left MCA
- Apraxia

Right MCA
- Neglect

PCA
- Agnosia
- Cortical blindness.
- Severe memory impairments.
Hemispheres

**Left hemisphere**
- Apraxia

**Right hemisphere**
- Visual spatial deficits
- Emotional problems
- Left sided neglect
Post Stroke Cognitive Impairments

- Don’t initiate going to the bathroom
- Go to the bathroom but forget all their belongings
- Not recalling your name yet you have looked after them many times before.
- Using their toothpaste as their toothbrush.
- Doesn’t appear to be concerned about their stroke
- Takes a long time to do tasks such as eat their dinner yet have no physical impairment
Post Stroke Visual Perceptual Impairments

92% have visual impairment

(ROWE, 2009)
Neuroanatomy of Visual Perceptual Impairments
Post Stroke Visual Perceptual Impairments

Vision Loss

- Homonymous hemianopia
- Homonymous quadranopia
Post Stroke Visual Perceptual Impairments

Cortical blindness
Post Stroke Visual Perceptual Impairments

Visual perception

Spatial impairments:
- Hemi-spatial neglect*
- Depth perception
- Figure ground

* Most common
Visual perception

- **Agnosia**: Failure to recognise stimuli despite adequate primary visual function

- **Prosopagnosia**: Difficulty recognising differences in faces.
Common Signs of Visual Perceptual Impairments

- Wearing clothes inside out
- Spilling hot drinks
- Eating half of their dinner
- Bumping into doorways/ people/ obstacles
- Not being able to recognise objects
Importance of Cognitive Screens

Cognition screen

• Visual spatial
• Attention
• Language
• Executive dysfunction
• Memory
Rehabilitation of Cognition and Visual perception

1. Educate and build insight

2. Teach strategies
   - Use of a diary
   - Use of a timetable
   - Visual scanning
   - Use of prompt cards
   - Use of alarms

3. Functional task practice
The Nurses Role

- Assist with intensity and repetition- provide 24 hour approach
- Give feedback to patients.
- Support use of aids- diaries, alarms, prompt sheets.
- Feedback to the ward
- Observe
Tips

• Consider written information to assist with slow, processing, attention, memory

• Consider the business of the ward- could you give information in a quiet place?

• Prepare patients for home… encourage independence… challenge.
Post Stroke Fatigue

50% experience fatigue

(Mckivitt, 2001)
Post Stroke Fatigue

**Definition**

- Not relieved by rest.
- Mental or physical
- Causes unknown
- Impact on cognition

**Factors associated with fatigue**

- Depression
- Side effects of medication
- Disturbed sleep
- Pain
- Anxiety
- Respiratory problems
Management Strategies

- Information and education
- Identification of strategies – triggers, re-energisers
- Environmental modifications
- Lifestyle change
- Scheduling and pacing
- Cognitive strategies to reduce mental effort
- Psychological support to address mood, stress and adjustment
Post Stroke Emotional Changes

1/3 experience depression

25% experience anxiety

(RCP 2016)
Post Stroke Emotional Changes

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<td>• Reaction to sudden effect of life changing</td>
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<tr>
<td>• Frustration</td>
<td>• Damage to the brain</td>
</tr>
<tr>
<td>• Anxiety</td>
<td>• Genetic</td>
</tr>
<tr>
<td>• Sadness</td>
<td>• Social factors</td>
</tr>
<tr>
<td>• Fear</td>
<td></td>
</tr>
<tr>
<td>• Hopelessness</td>
<td></td>
</tr>
<tr>
<td>• Emotionalism</td>
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Emotional Changes

Treatment

• Medication
• Cognitive behavioral therapy
Key Takeaways

• Stroke is a brain condition with many non-motor deficits.

• The ‘Invisible’ affects can be very disabling for patients.

• Nurses have a key role in identifying and helping patients manage these problems.
Questions?
References


• Stroke Association (2015) Life after stroke: Depression and emotional changes. Information leaflet

