Management of post-stroke pain

Upper Limb Workshop April 2017

Salford Royal Foundation Trust
Pain: Why does it matter?

- Pain is a common and troublesome problem following stroke
- Pain in shoulder and upper limb most common
- Interferes with rehabilitation
Whole team approach

- Entire MDT including GP need to be aware of problems of post stroke pain
- Rapid assessment and treatment associated with better outcome
- May be difficult to assess in people with communication problems
- Non verbal assessments

EAV of GM-SAT has aphasia friendly resources
What does the pain feel like?

- **TINGLING**
- **SHARP**
- **HOT**
- **COLD**
- **DULL**
What makes the pain better?

MOVING

NOT MOVING

EATING

MEDICATION
What makes the pain worse?

- MOVING
- NOT MOVING
- EATING
- MEDICATION
Types of Post-stroke pain

Musculoskeletal Pain

Post-stroke shoulder pain

Central post-stroke pain

Complex regional pain syndrome

Headache

Tyrrell PJ, Jones AKP ‘Management of Post-Stroke Complications’ Post-stroke Pain July 2015
Musculoskeletal Pain

• Commonest cause of pain after stroke
• Reflects incidence of MSK pain in the general population
• Often predates the stroke especially in older people
• Exacerbated by immobility
• Take a pain history from the patient or family
Regional shoulder pain

• Very common after stroke, may present early, or later in rehabilitation
• Tends to be associated with weakness
• Usually associated with movement especially shoulder abduction/rotation
• Maybe associated with ipsilateral sensory loss
• Shoulder subluxation not always associated with pain
Central post stroke pain

- Sometimes called neuropathic pain or “thalamic” pain
- Unpleasant; unlike any other pain
- Patient may use bizarre descriptors “red hot poker in my muscles”
- Made worse by cold or stress
- Made better by warmth/distraction
- Allodynia/sensory loss
- Sleep disturbance
Complex Regional Pain Syndrome

• Severe neuropathic pain
• Associated with vascular and autonomic changes
• Described in text books but rare now: earlier management
• Headache precedes or occurs at onset in some strokes (esp SAH, ICH, migraine)
• Not surprisingly a very worrying symptom for patients
• Clinical assessment/rescan then reassurance and simple measures

• Spasticity may be associated with pain
Clinical Assessment

- Try to get the patient to describe the pain in their own words, extent of pain and tenderness

- Spasticity

- Sensation/Allodynia – SLANSS scale can be helpful in identifying neuropathic pain

- Range of joint movement and motor function

- Sleep / Mood
SLANSS Scale

Bennet, J. Pain 2005

1. In the area where you have pain, do you also have ‘pins and needles’, tingling or prickling sensations?
   a) NO – I don’t get these sensations (0)
   b) YES – I get these sensations often (5)

2. Does the painful area change colour (perhaps looks mottled or more red) when the pain is particularly bad?
   a) NO – The pain does not affect the colour of my skin (0)
   b) YES – I have noticed that the pain does make my skin look different from normal (5)

3. Does your pain make the affected skin abnormally sensitive to touch? Getting unpleasant sensations or pain when lightly stroking the skin might describe this.
   a) NO – The pain does not make my skin in that area abnormally sensitive to touch (0)
   b) YES – My skin in that area is particularly sensitive to touch (3)

4. Does your pain come on suddenly and in bursts for no apparent reason when you are completely still? Words like ‘electric shocks’, jumping and bursting might describe this.
   a) NO – My pain doesn’t really feel like this (0)
   b) YES – I get these sensations often (2)

5. In the area where you have pain, does your skin feel unusually hot like a burning pain?
   a) NO – I don’t have burning pain (0)
   b) YES – I get burning pain often (1)

6. Gently rub the painful area with your index finger and then rub a non-painful area (for example, an area of skin further away or on the opposite side from the painful area). How does this rubbing feel in the painful area?
   a) The painful area feels no different from the non-painful area (0)
   b) I feel discomfort, like pins and needles, tingling or burning in the painful area that is different from the non-painful area (5)

7. Gently press on the painful area with your finger tip then gently press in the same way onto a non-painful area (the same non-painful area that you chose in the last question). How does this feel in the painful area?
   a) The painful area does not feel different from the non-painful area (0)
   b) I feel numbness or tenderness in the painful area that is different from the non-painful area (3)

Scoring: a score of 12 or more suggests pain of predominantly neuropathic origin

This is included in the GM-SAT at 6 months assessment
Pain Management – Needs MDT approach

Prognosis/Explanation: important to be realistically optimistic and to give an appropriate explanation of the pain

80% of patients in Salford post-stroke shoulder pain study (Gamble 2002) had a good recovery

Recovery from central post-stroke pain much more variable

Early treatment associated with better outcome
Management of MSK pain

• Careful assessment, pre stroke pain history
• Moving and handling advice
• Regular simple analgesia
• Rheumatology review may be helpful
Management of post stroke shoulder pain

• Can be very troublesome
• Interferes with rehab and ADL
• No evidence for strapping although acts as a reminder to staff
• Shoulder injection: no evidence it helps
• Analgesia and gentle mobilisation are mainstay of treatment
Management of CPSP

• Understanding the reasons for the pain: explanation to patient and carers
• Drug treatment: evidence for amitryptiline, gabapentin/pregabalin; opioids
• Avoid opioids because of SEs
• Capsaicin cream if localised pain
• drugs need dose titration and monitoring
• Consider sleep and mood
Recent NICE guidelines for the management of neuropathic pain suggest:

1.1.8 Offer a choice of amitriptyline, duloxetine, gabapentin or pregabalin as initial treatment for neuropathic pain (except trigeminal neuralgia)\(^5\).

1.1.9 If the initial treatment is not effective or is not tolerated, offer one of the remaining 3 drugs, and consider switching again if the second and third drugs tried are also not effective or not tolerated

1.1.10 Consider tramadol only if acute rescue therapy is needed (see recommendation 1.1.12 about long-term use)

1.1.11 Consider capsaicin cream\(^6\) for people with localised neuropathic pain who wish to avoid, or who cannot tolerate, oral treatments.
Whole team approach

• Pain can be a very disabling symptom
• Assessment of pain may take time especially in people with communication/cognitive difficulties
• Psychological consequences of pain can be important
• Psychological problems impact on pain experience
What causes post-stroke pains and are they different from other pains?

Simple scheme of pains:

- Pain due to peripheral tissue damage
- Pain due to damage to the nervous system
- Pain due to the brain being under a lot of stress
Summary

• Team awareness: watch out for symptoms
• Explanations to patient and carers
• Be aware of the impact on the whole patient
• Assess for type of pain (may be more than one!)
• Early treatment and monitoring
• Specialist referral early if necessary