
Management of hemiplegic shoulder pain following stroke

A Narrative review

Smith, M., 2012. Management of hemiplegic shoulder pain following stroke. Nursing Standard, 26(44), pp.35-44.

Setting the Scene

Upper limb impairment is seen in 90% of patients affected by stroke. Muscle paresis, abnormal muscle tone and loss of proprioception following stroke may render the shoulder complex unstable and therefore prone to misalignment. Hemiplegia interferes with movement and postural control and, as a result, may increase the potential to develop Hemiplegic Shoulder Pain (HSP) and other upper limb complications caused by the effects of gravity on the arm. Paralysis, particularly in association with low muscle tone around the shoulder, may result in the glenohumeral joint being partially dislocated under the influence of gravity, especially when unsupported. This is known as subluxation.

Shoulder pain is a common problem following stroke. Patients may present with varying degrees of paralysis, which commonly affects the arm. As a consequence, the stability of the shoulder may be compromised with subsequent risk of damage to soft tissue structures. Patients with more severe paralysis of the arm are increasingly likely to develop shoulder pain. The underlying causes of shoulder pain, and the sources of this pain, have been the subject of debate and research for many years. There is recent evidence to suggest that damage to soft tissues can occur during post-stroke care in hospital. An evidence-based, multidisciplinary approach should be used to prevent damage to the shoulder and enable management of any complications that arise.

What did the author describe?

National clinical guideline for stroke:

Every patient with significant functional loss in his or her arm should have the risk of developing shoulder pain reduced by:

Ensuring that everyone handles the weak arm correctly, avoiding mechanical stress.

Employing correct anatomical positioning of the arm, using foam arm supports if necessary.

Asking every patient with arm weakness, initially daily, about his or her pain.

Every patient who develops shoulder pain should:

Have pain severity assessed, recorded and monitored regularly.

Have preventive measures in place.

Be offered simple analgesia.

Any patient with persistent more troublesome shoulder pain should be considered for:

High intensity transcutaneous electrical nerve stimulation.

Shoulder strapping.

Functional electrical stimulation in the presence of subluxation.

Factors to consider when managing pain following stroke include:

Hemiplegic shoulder pain is common.

Preventive and treatment strategies should be employed.

Staff should be aware that subluxation is associated with worse hemiplegic shoulder pain.

Staff should be aware that trauma to the shoulder can arise as a consequence of rehabilitation so appropriate handling skills should be taught.

Hemiplegic shoulder pain is more prevalent in left hemiplegia.

Staff should ensure that analgesia is offered to patients regularly.

Takeaway home message:

HSP is a common complication of stroke. Its causes are not understood fully, but it is usually associated with weakness of the arm, particularly on the left side; loss of sensation; abnormal muscle tone; and loss of range of motion. Shoulder subluxation may mean that the patient is at risk of physical trauma during care and rehabilitation; subluxation has been associated with soft tissue damage, which may also contribute to HSP. The hemiplegic shoulder in patients with stroke continues to present a clinical challenge to delivering effective prevention and treatment of pain and soft tissue damage.