

## Rheumatologic complications of shoulder joint after stroke

Zaki Noah Hasan<sup>1</sup> FICMS, Abdulamir Abunayla<sup>2</sup> FICMS, Hasan Azeez Al-hamadani<sup>3</sup> FICMS.

### **Abstract**

**Background:** Shoulder pain is one of the complications that happened in patient suffered from hemiplegia. There are many pathological processes have been postulated as causes of painful hemiplegics shoulder after stroke. One of the causes is Rotator cuff syndrome. Other causes of shoulder pain are biceptal tendonitis; Subacromial and sub-deltoid Bursitis, Adhesive capsulitis (frozen shoulder) is a common painful condition associated with loss of active movement in the direction of external rotation and abduction.

**Objective:** The aim of this study is to analyze shoulder pain and its correlation with the different clinical aspects of cerebral dysfunction.

**Patients and method:** 56 patients affected by different types of stroke were enrolled in this study, each patient was examined by neurologist, CT scan then done and referred to a consultant

rheumatologist at Alkindi hospital for assessment of his shoulder area, the patient then investigated thoroughly for his or her shoulder pain.

**Results and conclusion:** The study showed high correlation between shoulder pain and older age patients, aphasia, cortical sensory defects. The shoulder pain development is more common in older age group. Patients with cortical involvement are at high risk to develop shoulder pain. The shoulder pain development is not related to the side of hemiplegia, sex and grading of muscle weakness.

**Key word:** shoulder joint, stroke.

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### **Introduction**

Stroke is a sudden neurological dysfunction, resulting from sudden vascular insult involving cerebral vessels<sup>(1)</sup>; it is either ischemic due to cessation of blood supply to the brain<sup>(2)</sup>, or hemorrhagic stroke; due to different types of intracranial hemorrhage<sup>(2, 3)</sup>. Shoulder pain is very common problem facing the neurologist when managing patients with stroke<sup>(4)</sup>; 20 – 70% of patient with stroke develop hemiplegics shoulder pain<sup>(5, 6)</sup>.

Shoulder pain affects stroke outcome in a negative way; it can cause considerable distress and reduced activity and can markedly hinder rehabilitation resulting in negative interference with recovery after stroke<sup>(7,8)</sup>.

The cause of hemiplegics shoulder pain is the subject of considerable controversy<sup>(8)</sup>. There are many pathological processes have been postulated as causes of painful hemiplegics shoulder after stroke. One of the causes is Rotator cuff syndrome, which results from impinging of rotator cuff tendon between acromion and humeral head, resulting in acute pain at the lateral surface of shoulder<sup>(9, 10)</sup>.

Other causes of shoulder pain are biceptal tendonitis; which affect large head of biceps resulting in pain at the

<sup>1</sup>Dept. of Neurology. Alkindi collage of medicine. Baghdad University, <sup>2</sup>Dept. of Rheumatology. Alkindi collage of medicine. Baghdad University, <sup>3</sup>Dept. of Neurology, collage of medicine Al-Nahrain University.

Address Correspondences to: Dr. Hasan Azeez Al-hamadani

E. mail:hah\_hamdani@yahoo.com

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