INTRODUCTION

Hemiplegic shoulder pain (HSP) is a common problem on the affected side with a reported incidence of up to 84%.

It is a well recognised cause of upper limb dysfunction and results in significant disability and reduced quality of life.

Evidence to support interventions for HSP are limited.

PURPOSE

To report findings on patients with HSP who received problem specific treatment following US scanning.

CASE DESCRIPTION

Six chronic patients with stroke (mean time 9 months).

Patient underwent both in-patient rehabilitation and community rehabilitation as part of the stroke services in Wales.

Currently, patient were undergoing rehabilitation in a private clinic in Wales.

Upper limb rehabilitation included over-arm exercises, electrical stimulation to anterior and posterior deltoid, stretches, Saebo exercises).

Main problems: 1) shoulder pain 2) reduced range of motion at shoulder (external and internal rotation 3) glenohumeral subluxation, 4) decreased strength, 5) alerted shoulder girdle –protracted shoulders, 6) tight internal rotators.

REAL-TIME ULTRASOUND

Ultrasound scanning was undertaken on both shoulders.

OCTAVIOUS

US image of AGT distance. Ac - Acromion, GT - Greater Tuberosity, Sup - Supraspinatus

Diameter of Supraspinatus

A) Resting

B) Contracted

OUTCOMES

At 12 weeks

1) Patients showed 50-75% reduction in pain
2) 40-60% improvement in GHS (up to 1 cm affected to unaffected difference
3) Increase in the diameter of supraspinatus at rest (0.4 cm) and contracted state (0.8cm)
4) Increase in range of movement (flexion – 30 degrees, abduction – 45 degrees, external rotation – 40 degrees)
5) Improved use of arm for function / rehabilitation

Patients comments: Found improvement in activities of daily living Clinicians Comments: Found improvements in designing and delivery of exercise programme.

CONCLUSIONS

This case series study demonstrates potential benefits of real-time ultrasound as an assessment tool to inform treatment choices in a chronic patient with stroke.

KEY MESSAGE

• Problem specific treatment might improve patients outcomes
• Rotator cuff rehabilitation should be considered in patients with shoulder impairments following stroke

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