

MEETING ABSTRACT

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Personalized monotherapy vs. protocol therapy complex for frozen shoulder. Comparative study

Rostyslav V Bubnov^{1*}, Andrii M Strokan², Petro V Logvinchuk³, Tetiana S Aleksieieva³

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Background

Many approaches exist for frozen shoulder, rotators myofascial trigger points (MTrP) inactivation is crucial therapeutic point [1,2].

The aim

was to determine efficacy of additional treatment after MTrP inactivation.

Materials and methods

We included 30 patients, 13 males 17 females, aged 42-63 years (the average was 54 years) with diagnosed frozen shoulder, MTrP were identified in rotator muscles (infraspinatus, supraspinatus, subscapular and teres minor muscles). Patients were randomly assigned to: group A - MTrP dry needling (DN) under ultrasound guidance; patients of group B additionally received conservative treatment (physiotherapy, massage, gymnastics) according to accepted treatment protocol. All patients had symptoms over 1 month, underwent general diagnostic examination including MRI, laboratory, neurologic, orthopedic tests, neuropathy, spine diseases were excluded. Visual analogue scale data (VAS, 0-10); Disabilities of the Arm, Shoulder and Hand (DASH) disability, Subjective global function (0-100) scores were measured before, immediately after, 24 hours, 14 days after intervention. We evaluated pain and trigger point (spasticity) recurrence 24 hours and 14 days after manipulation in both groups.

Results

After 14 days, VAS shown pain improvement from 7.3 to 1.1 in group A compared to 7.4 to 4.5 in group B

($P < 0.01$); DASH scores improved by 40 % (161.3 to 113.4) in A vs. 25% (131.26 to 84.7) in group B ($P < 0.05$); Subjective global function scores, improved from 56 and 58 at baseline to 73, 91 respectively ($P < 0.05$). MTrP recurrence was lower in group A: 30% vs. 53% in group B ($P < 0.01$) at 24 hours after manipulation; outcome at 14 day was 7% vs. 27% respectively ($P < 0.05$).

Conclusions

DN under Ultrasound guidance of MTrP in rotators is effective method for frozen shoulder, is preferred as personalized monotherapy for pain relief and prevent trigger point (spasticity) relapse.

Outlook and expert recommendations

The larger cohort studies (preferable multicenter RCT) are recommended to start to establish science based treatment algorithm.

Authors' details

¹Ultrasound, Clinical Hospital "Pheophania" of State Affairs Department, Kyiv, Ukraine. ²Anesthesiology, Clinical Hospital "Pheophania" of State Affairs Department, Kyiv, Ukraine. ³Neurology, Clinical Hospital "Pheophania" of State Affairs Department, Kyiv, Ukraine.

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* Correspondence: rostbubnov@gmail.com

¹Ultrasound, Clinical Hospital "Pheophania" of State Affairs Department, Kyiv, Ukraine

Full list of author information is available at the end of the article