【雑誌ナンバー】

Iran Red Crescent Med J. 2012 Oct;14(10):631-40. Epub 2012 Oct 30.

【英文題】

A randomized clinical trial of fibromyalgia treatment with acupuncture compared with fluoxetine.

【日本語題】

線維筋痛症に対する鍼治療とフルオキセチンのランダム化比較試験

【筆頭著者】

Hadianfard MJ

【目的】

線維筋痛症患者に対する鍼治療とフルオキセチン（SSRI：抗うつ剤）の有効性について比較検討する。

【方法】

□デザイン：ランダム化比較試験（プロスペクティブ）

□セッティング：イラン

□対象：線維筋痛症患者

□参加人数：30名

□介入：①鍼治療群、②コントロール群

・治療回数：①週3回（合計6回）、②期間中毎朝

・治療期間：①2週間、②8週間

・治療内容：①決まった経穴への鍼治療

②フルオキセチンを経口投与

□評価

・プライマリーアウトカム：VAS：痛み

・セカンダリーアウトカム：圧痛点の数、FIQ

【主な結果】

VASは、2週間後に①と②の間に差が認められ、①の方が改善していた。

圧痛点の数は、2,4週間後に①と②の間に差が認められ、①の方が改善していた。

FIQは、4週間後に①と②の間に差が認められ、①の方が改善していた。

【結論】

鍼治療は、副作用がなく安全で、痛みと線維筋痛症症状を有意に改善する治療法である可能性が考えられた。

【鍼治療】
部位：足三里、陽陵泉、気海、三陰交、合谷、内庭、委中、神門、百会
刺激内容：得気を得て置鍼
使用鍼：0.25mm×40mm
刺入深度：10-30mm
治療時間：30 分間

【薬物治療】
フルオキセチン（選択的セロトニン再取り込み阻害剤）20mg 毎朝経口投与

【参加基準】
1990ACR 診断基準を満たす者
中程度から強度の痛みがあり、VAS4 以上の者

【除外基準】
重度精神障害者
神経障害者
リウマチ性疾患の者
心臓病の者
その他結果に影響を与えそうな著名な全身疾患がある者
鍼治療あるいは薬物治療を禁忌とする何か問題（例：緑内障）がある者

【雑誌ナンバー】

ClinExpRheumatol. 2012 Nov-Dec 30(6 Suppl 74):112-6

【英文題】

Complementary treatment in fibromyalgia: combination of somatic and abdominal acupuncture.

【日本語題】

線維筋痛症に対する補完治療：身体と腹部を併せた鍼治療

【筆頭著者】

Iannuccelli C

【目的】

線維筋痛症患者に対して、個々に合わせて身体と腹部の治療穴部位へ鍼治療した時の有効性を評価する。

【方法】

□デザイン：ケースシリーズ

□セッティング：イタリア

□対象：線維筋痛症患者

□参加人数：30

□介入：

・治療回数：10回（週1回）

・治療期間：10週間

・治療内容：伝統的中国医学(TCM)に基づいた経穴への鍼治療

□評価

圧痛点の数、FIQ、FAS、HAQ、VAS：痛み・疾患活動性、ZSAS、ZSDS

【主な結果】

6名の脱落者（2名：効果なし、4名：治療規則を守れない）が出たものの、治療終了後全評価で改善が認められる。

（圧痛点の数、FIQ、FAS、HAQ、VAS：痛み・疾患活動性、ZSAS、ZSDS）

【結論】

線維筋痛症患者に2つのタイプの治療を組み合わせて治療を行うと、痛みのみではなく関連症状やQOLの改善も認められた。そのため、今回の治療は医療費を減少させる可能性があるので、更なる検討が必

要である。

【鍼治療】

部位：一度本文を見る事

・身体：23Du、YINTANG(Extra),4IC,36S,6MP,9MP,7P,3R,3F,3IT,62V,6R,6PC,6TR

・腹部：12Ren,4Ren,両側 25ST,15MP 両側,24ST 両側,

・横隔膜より上に痛みがある場合：9Ren,extra points

・横隔膜の下に痛みがある場合：26St 両側、11K、17K、extra points

※痛み、不眠症と疲労、疲労とうつ、不眠症と怒りやすいなどの症状にあわせて経穴を選択

刺激強度：旋捻法：得気を得る、腹部：回旋なし

刺入深度：8-20mm、腹部：皮下

使用鍼：18×30mm、18×40mm

治療時間：20 分

【参加基準】

1990/2010ACR 診断基準を満たす者

研究が始まる 3 か月前より薬物に変更がなく継続している者

10 週間、週 1 回の鍼治療に参加できる者

【雑誌ナンバー】

J Acupunct Meridian Stud. 2013 Jun;6(3):163-8.

【英文題】

Effect of acupuncture at tender points for the management of fibromyalgia syndrome: a case series.

【日本語題】

線維筋痛症に対する圧痛点鍼治療の効果：ケースシリーズ

【筆頭著者】

Bastos JL

【目的】

線維筋痛症患者の圧痛点に鍼治療を行うことでその効果を検討する。

【方法】

□デザイン：ケースシリーズ

□セッティング：ブラジル

□対象：線維筋痛症患者

□参加人数：8名

□介入：鍼治療

・治療回数：8回（週1回）

・治療期間：2ヶ月間

・治療内容：圧痛部への鍼治療

□評価：

圧痛閾値、FIQ、HAQ、BDI、BAI

【主な結果】

閾値の増加、そしてFIQ,BDI,BAIによって不安、うつ、QOLの改善が認められたが、HAQの改善は認められなかった。

【結論】

圧痛点への鍼治療は、線維筋痛症の全体的な健康状態（well-being）を改善させる有効な手段となるかもしれない。

そのため、今後はさらにこの方法を検討することが必要である。

【鍼治療】

□鍼治療

部位：両側の後頭骨（風池）、僧帽筋（天髎）、菱形筋（肺俞）、胸郭上部（雲門）、外側上顆（曲池）圧痛部への治療
刺激強度：旋撚術、回旋術（5分おき）
使用鍼：0.25×30mm
刺入深度：2.0cmまで
治療時間：20分

【参加基準】
線維筋痛症の診断を受けた者

【除外基準】
なし

文献リスト

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□今回採用した線維筋痛症と鍼灸治療の文献

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研究成果の刊行に関する一覧表

書籍

著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	出版年	ページ
伊藤和憲	子供のためのトリガーポイントマッサージ&タッチ	単著		緑書房	東京	2014	

雑誌

発表者名	論文タイトル名	発表雑誌	巻号	ページ	出版年数
Itoh K	Randomized trial of trigger point acupuncture treatment for chronic shoulder pain: A preliminary study.	J Acupunct Meridian Stud	7(2)	59-64	2014
伊藤和憲	【原因不明の腰痛を治す】 鍼灸臨床において痛みをどのように捉えるか? 腰痛を題材に痛みの診療を考える	鍼灸 Osaka	30(1)	57-63	2014
内藤由規（伊藤和憲）	災害の後遺症に対する鍼治療の試み ～鍼手技の違いが効果に及ぼす影響～.	日本統合医療学会誌	8(1)	印刷中	2014
皆川陽一	トリガーポイント診断意義の検討—TP 原因筋検出法に関して—	慢性疼痛	33(1)	149-152	2014
浅井福太郎	線維筋痛症患者のセルフケアに関する実施調査	慢性疼痛	33(1)	181-186	2014
皆川陽一	本邦線維筋痛患者を対象とした鍼灸治療の文献調査., 印刷中	帝京平成大学紀要		印刷中	2014

研究成果の刊行物・別刷

Available online at www.sciencedirect.com

Journal of Acupuncture and Meridian Studies

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RESEARCH ARTICLE

Randomized Trial of Trigger Point Acupuncture Treatment for Chronic Shoulder Pain: A Preliminary Study

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Abstract
There is evidence for the efficacy of acupuncture treatment for chronic shoulder pain, but it remains unclear which acupuncture modes are most effective. We compared the effect of trigger point acupuncture (TrP), with that of sham (SH) acupuncture treatments, on pain and shoulder function in patients with chronic shoulder pain. The participants were 18 patients (15 women, 3 men; aged 42–65 years) with nonradiating shoulder pain for at least 6 months and normal neurological findings. The participants were randomized into two groups, each receiving five treatment sessions. The TrP group received treatment at trigger points for the muscle, while the other group received SH acupuncture treatment on the same muscle. Outcome measures were pain intensity (visual analogue scale, VAS) and shoulder function (Constant–Murley Score: CMS). After treatment, pain intensity between pretreatment and 5 weeks after TrP decreased significantly ($p < 0.001$). Shoulder function also increased significantly between pretreatment and 5 weeks after TrP ($p < 0.001$). A comparison using the area under the outcome curves demonstrated a significant difference between groups ($p = 0.024$). Compared with SH acupuncture therapy, TrP therapy appears more effective for chronic shoulder pain.

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1. Introduction

Shoulder pain is an important medical and socioeconomic problem in the western world, with between 7% and 26% of the population reporting shoulder problems at any one time [1]. The presence of pain and stiffness in the shoulder can lead to an inability to work and/or to carry out domestic and recreational activities, thus creating a high burden of disease for both the individual and society [2].

Pain and stiffness of the shoulder is commonly caused by rotator cuff disorders including tendonitis and bursitis, by adhesive capsulitis, and by osteoarthrosis of the glenohumeral joint [3]. The normal course of the disease consists of a gradual or sudden onset, accompanied by night pain and pain on moving the affected joint. The mobility of the shoulder joint then becomes progressively more limited, until in many cases a "frozen" or stiff shoulder is the result. The process, according to most of the literature, is generally "self-limiting", lasting for about 1–3 years. Nevertheless, a significant number of patients suffer from a residual, clinically detectable restriction of movement beyond 3 years [4]. The common treatments for shoulder pain are NSAIDs, physiotherapy, injections, and conservative "wait and see" [5]. Unfortunately, none of these treatments is clearly proven to be effective for chronic shoulder pain in the long run, calling for new treatment strategies to improve the situation of chronic shoulder pain sufferers [4,5].

Worldwide, chronic shoulder pain is considered one of the indications most amenable to treatment with acupuncture [6–10]. A small number of clinical and methodologically diverse trials have been published recently that show little evidence to support or refute the use of acupuncture for chronic shoulder pain [11]. However, whether the effect varies depending on the difference in the acupuncture technique has not clearly been demonstrated.

It is generally accepted that the acupuncture treatment administered in the studies conducted so far, have been based on clinical practice rather than empirical evidence. The method of point selection in published trials seems to be more simple and formulaic than that used in the standard acupuncture practice at our clinic. We believe that the response to acupuncture and therefore, the success of a trial, depend substantially on the choice of and the number of points treated.

The main aim of this study was to determine if acupuncture at trigger points is an effective treatment for chronic shoulder pain, when compared with sham (SH) treatment at trigger points.

2. Materials and methods

The design of this study was a blinded, SH-controlled, randomized clinical trial, in which one group received acupuncture treatment and the other SH acupuncture treatment. Patients aged ≥40 years, with a history of shoulder pain, were recruited from the Meiji University of Integrative Medicine Hospital specifically for the study. The patients were outpatients in whom chronic shoulder pain had been clinically diagnosed. Inclusion criteria were: (1) shoulder pain lasting for ≥6 months; (2) no neurological disorders causing shoulder pain; (3) an average pain score of 50 mm or on a 100-mm visual analogue scale (VAS) in the pre month; (4) age between 40 years and 70 years; (5) no referred pain from the cervical spine; (6) no osteoarthritis of the glenohumeral joint or systemic bone and joint disorder (e.g., rheumatoid arthritis); (7) no history of shoulder surgery; (8) no other current therapy involving analgesics; (9) had not received acupuncture in the last 6 months; and (10) insufficient response to the medications prescribed by their orthopedic specialist.

The patient could continue to use their medications as they had before enrolment. Exclusion criteria were major trauma or systemic disease, and other conflicting or ongoing treatments.

Patients who gave written informed consent were enrolled and randomly allocated using a computerized randomization program, to the trigger point acupuncture (TrP), or SH treatment groups. Each patient received a total of five treatments, one per week, each lasting 30 minutes, and was followed-up for 20 weeks from the first treatment.

Patients were blinded to their treatment. They were told before randomization that they would be allocated to one of two groups. The measurements were performed by an independent investigator, who was not informed about the treatment sequence or the treatment the patient received before each measurement. Patients were asked to cover their eyes with an eye mask to blindfold them, and to ensure that they avoided being aware of the SH procedure.

Ethical approval for this study was given by the ethics committee of the Meiji University of Integrative Medicine.

2.1. Trigger point acupuncture group

The trigger point acupuncture (TrP) group received acupuncture treatment at trigger points. The correct application of the technique requires experience in palpation and localization of taut muscle bands and myofascial trigger points. Precise needling of active myofascial trigger points provokes a brief contraction of muscle fibers. This local twitch response should be elicited for successful therapy, but it may be painful and posttreatment soreness is frequent [12,13]. In this study, the most important muscles of the neck and superior limb were examined for myofascial trigger points (Table 1).

Disposable stainless steel needles (0.2 mm × 50 mm, Seirin, Sizuoka, Japan) were inserted into the skin over the trigger point to a depth of 5–15 mm, appropriate to the muscle targeted, attempting to elicit a local muscle twitch response using the so called "sparrow pecking" technique. After the local twitch response was elicited, or a reasonable attempt made, the needle was retained for a further 10 minutes. The mean number of insertions was 4.1.

2.2. Sham acupuncture group

The sham (SH) group received SH treatment at trigger points. The methods of choosing trigger points were the same. For the SH group, similar stainless steel needles (0.2 mm × 50 mm) were used, but the tips had been cut off

Table 1 Muscles treated in the two trigger point acupuncture groups.

Muscle	Trigger point group	Sham group
Musculus trapezius	3	4
M. supraspinatus	4	6
M. infraspinatus	6	6
M. teres minor	4	3
M. teres major	2	2
M. subscapularis	5	6
M. latissimus dorsi	1	2
M. pectoralis major	2	2
M. pectoralis minor	2	1
M. biceps brachii	2	3
Other	2	3

to prevent the needle from penetrating the skin. The cut ends were smoothed with sandpaper manually under clean conditions [14]. The acupuncturist pretended to insert and manipulate the needle: place the needle with a guide tube over the designated point and tap the top of the needle handle and then remove the tube while holding the needle tip with the thumb and the forefinger of the left hand and thrust and withdraw the needle with the right hand, which holds the needle handle (sparrow pecking technique). A simulation of needle extraction was performed after 10 minutes, by touching the patient and noisily dropping needles into a metal case.

To facilitate blinding, we used an eye mask. The mean number of insertions was 4.4. The treatments were performed by two acupuncturists who had 4 years of acupuncture training and 3 or 10 years of clinical experience.

2.3. Evaluation

Primary outcome measures were pain intensity, quantified using a 100 mm VAS, and pain disability [15], measured using the Constant–Murley Score (CMS) [15,16]. The total CMS consists of nine questions (range 0–100 points, the worst condition being 100).

The VAS measures were assessed immediately before the first treatment and 1, 2, 3, 4, 5, 10, and 20 weeks after the first treatment. The CMS measures were assessed before the first treatment and 5, 10, and 20 weeks after the first treatment. The VAS and SMS measures were completed by participants immediately before each treatment (Fig. 1).

To examine the efficacy of the blinding technique of the study, the participants were asked to select an answer for the question "How did you feel when the acupuncture needle was inserted?" at the end of the first phases. The available answers were: (1) needles were inserted into muscle; (2) needles did not penetrate the skin; and (3) I could not discriminate the difference.

2.4. Statistical analysis

The data are reported as mean ± standard deviation (mean ± SD). Dunnett's multiple comparison test was applied to detect significant changes within each group. To compare the results of two groups, the area under the curve (AUC) of the pain VAS was calculated from the summation of the time–response curves for individual patients. The AUC data (arbitrary units) for each group were used for group comparison by a one-way analysis of variance (ANOVA) followed by *post hoc* multiple comparisons using the Bonferroni correction.

Assessment of the success of blinding was analyzed using a χ^2 test. SPSS software for Windows (version 11.0, SPSS Japan Inc., Shibuya, Tokyo, Japan) or Systat 11 (Systat Software, Washington, Chicago, USA) was used for the statistical analysis. A p value <0.050 was considered as statistically significant.

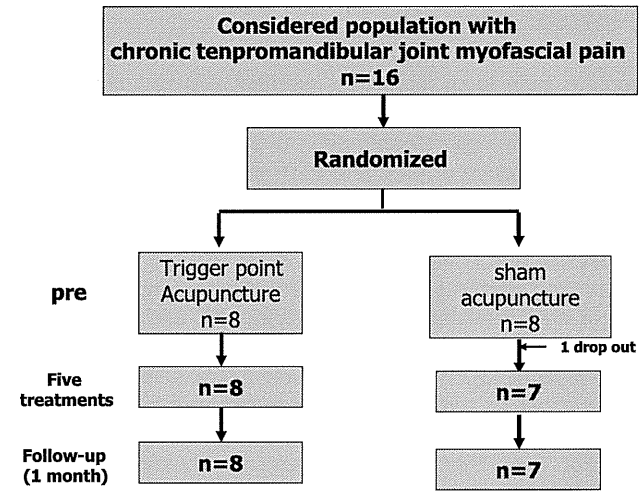

Figure 1 Participation flow in the study. One patient was excluded after she dropped out.

3. Results

3.1. Patient characteristics

Eighteen patients (15 women, 3 men; aged 42–65 years) were randomized to two groups and administered treatment (Fig. 2). No differences were found the between the two groups in the variables measured at baseline, including age, disease, pain duration, VAS, and drug use (Table 2).

Patient progress through the trial is shown in Fig. 2. One patient in the SH group dropped out, as they had no response to treatment. The drop-out rate was not different among the groups ($p = 0.31$, Mann–Whitney U test). The analyses were performed on the 17 patients who completed the study.

3.2. VAS score

Pain intensity decreased at weeks 4–5 in the TrP group, when compared with pretreatment levels. These improvements persisted for 10 weeks after cessation of the treatment in the TrP group. The mean VAS score decreased significantly in the TrP group ($p < 0.001$ in the TrP by repeated measures ANOVA; Fig. 2).

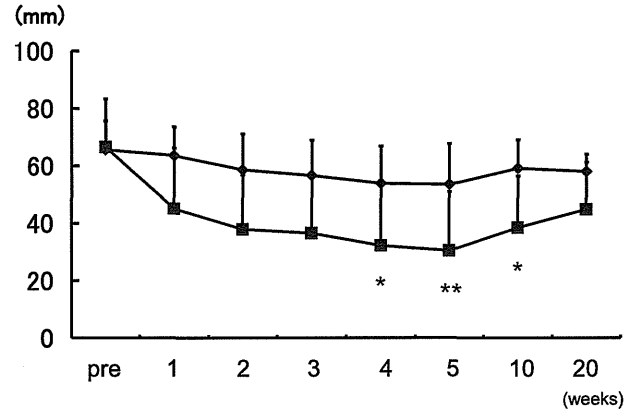

Figure 2 This shows the effect of acupuncture on visual analogue scale (VAS) score for chronic shoulder pain. The pain intensity was lower at weeks 4–5 in the trigger point acupuncture (TrP) group when compared to pretreatment scores. ■: TrP group ($n = 8$), ◆: sham acupuncture group ($n = 7$), $^*p < 0.05$, $^{**}p < 0.01$.

The AUCs for pain intensity (VAS score) are shown in Fig. 3. The score was significantly lower in the TrP group than in the SH group ($p = 0.024$).

3.3. Functional impairment

The reduction in the CMS score was higher at week 5 in the TrP group, when compared with that at pretreatment. These improvements persisted for 1 month after cessation of the treatment. The mean CMS score showed a significant reduction in the TrP group ($p < 0.001$ in the TrP; Fig. 4).

The AUCs for functional impairment (CMS score) are shown in Fig. 5. The score was not significantly higher in the TrP group than in the SH group ($p = 0.311$).

3.4. Assessment of the blinding technique

In the present procedure, 77.8% in the TrP group and 75.0% in the SH group stated that they received the needle insertion to the muscle, whereas 22.2% in the TrP group and 25.0% in the SH group stated they received no penetration of the needle. There was no significant difference between the two treatment types ($\chi^2 = 0.18$, $p = 0.89$).

Table 2 Characteristics and baseline values of patients in the two groups.

	Trigger point group	Sham group
Sample size	8	8
Age (y)	55.0 ± 12.6	59.3 ± 15.6
Pain duration (y)	2.1 ± 1.6	2.2 ± 1.6
Visual analogue scale (mm)	67.3 ± 18.2	66.9 ± 10.1
Constant–Murley Score	57.0 ± 9.9	57.6 ± 8.0
Drug user	0	0

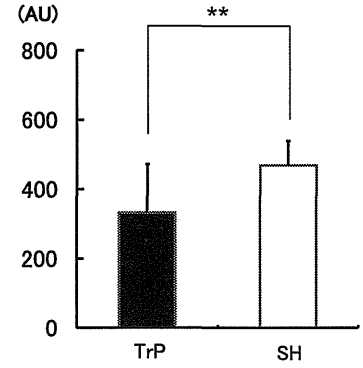

Figure 3 The columns indicate the area under the curve (AUC, arbitrary units) for changes in the pain visual analogue scale (VAS) score in the two groups. During the observation period, improvement was greater in the TrP group than the SH group ($p = 0.024$). $^{**}p < 0.01$.

4. Discussion

In the present study, there was a statistically significant difference between the TrP and SH acupuncture treatments, 5 weeks after the first treatment. These results suggest that TrP treatment is more effective than SH acupuncture treatment for chronic shoulder pain.

In many cases, chronic shoulder pain is correlated with deformation of the shoulder joint and muscle tension around the joint [17]. A wide range of treatments are used, including drugs, physical medicine methods, and manual treatments [4,5]. Acupuncture treatment has been used for pain relief for a long time. Several studies have examined the efficacy of acupuncture treatment for shoulder pain; however, the results have been mixed [11,17].

In evaluating the efficacy of acupuncture, three important parameters are the site, mode, and intensity of the stimulation. For assessing the 'stimulation site' parameter, one can define the number of stimulation sites and their location (traditional acupoint or tender/trigger point). In

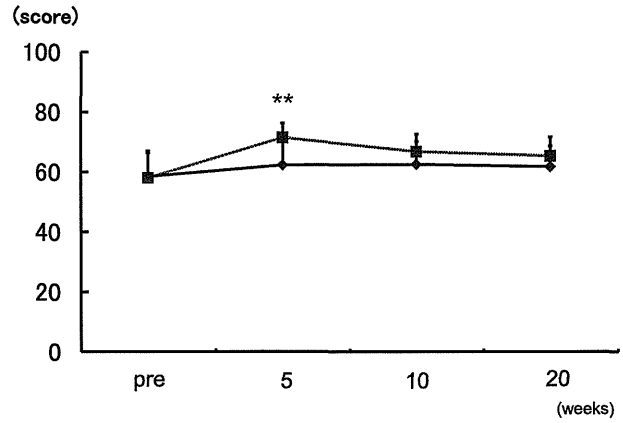

Figure 4 The effect of acupuncture on Constant–Murley Score (CMS) score indicating shoulder function. The CMS score was lower at weeks 5–10 in the trigger point acupuncture (TrP) group when compared to pretreatment scores. ■: TrP group ($n = 9$), ◆: sham acupuncture group ($n = 8$), $^{**}p < 0.05$.

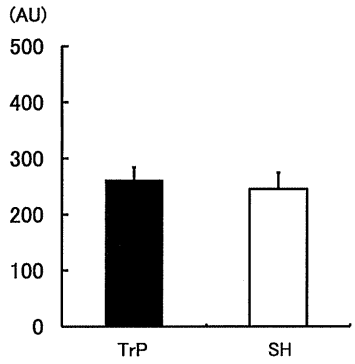

Figure 5 The columns indicate the area under the curve (AUC, arbitrary units) for changes in shoulder function in the two groups. The trigger point acupuncture (TrP) group, the score was higher than the sham (SH) group score, but the difference was not statistically significant ($p = 0.311$).

most previous studies, the stimulation sites were traditional acupuncture points [18–20]. However, our results suggest that the response to trigger points is greater than the response to treating traditional acupoints or non-trigger points [21,22]. These results suggest that the site of stimulation is important, and the acupuncture stimulation of myofascial trigger points might be most effective for chronic shoulder pain patients.

The importance of the sham-controlled, randomized clinical trials, to control for the strong placebo effects of acupuncture, has been debated [14,23,24]. Nabeta and Kawakita [14] found that there are many acupuncture randomized clinical trials in which various control groups have been employed, such as no-treatment controls [25], mere pricking (without penetration) [26], minimum acupuncture (shallow and weak needling) [27], and mock transcutaneous electrical nerve stimulation (without current pulse) [28,29]. However, in most previous studies, positive results were obtained in studies that used a non-acupuncture control group [25,30], and negative results tended to be reported in those that used SH acupuncture or mock transcutaneous electrical nerve stimulation [31,32]. Therefore, the choice of control might be very important. The SH acupuncture technique used in this study was very simple. We used a needle that had previously had its tip cut off so that it was blunt. The practitioner applied the same procedure as for the genuine acupuncture. Blinding in this study appears to have been successful. Although a few patients withdrew from the study, we considered the influence on the results to be minimal, because the number of withdrawals in each group did not differ much (1/7 in SH and 0/8 in TrP).

4.1. Effectiveness of the trigger point as a treatment site for acupuncture

The myofascial trigger points have often been used in the treatment of myofascial pain syndrome. The myofascial trigger point has been defined as a highly localized and hyperirritable spot in a palpable taut band of skeletal muscle fibers [13]. Important characteristics of myofascial trigger points include local pain or tenderness, referred pain or referred tenderness, and local twitch response [12,13]. Acupuncture or dry needling of a myofascial trigger point appears to provide immediate relief of pain related to that myofascial trigger point [21,33,34]. However, the effects of TrP on chronic shoulder pain remain unclear.

In this study, clinical results suggested that the analgesic effect of TrP is better than that of SH acupuncture. Myofascial active trigger points are supposed to be sites where nociceptors, such as polymodal-type receptors, have been sensitized by various factors [35,36]. In particular, sensitized nociceptors might be a cause of localized tenderness, referred pain, and local twitch response [37,38]. Moreover, the trigger point insertion of the needle (but not always acupuncture point insertion) affects sensitized nociceptors [38–40]. Thus, acupuncture stimulation of myofascial active trigger points may produce greater activation of sensitized polymodal-type receptors, resulting in greater pain relief.

TrP, compared with standard acupuncture, provides significantly more relief of chronic low back pain and neck pain [21,22], but not of chronic knee pain [41]. These findings suggest that the myofascial pain near joints in contrast to other types of chronic pain, may depend on different factors, such as inflammation and joint pain. Therefore, the effects of standard acupuncture on chronic shoulder pain may be as effective as TrP. However, the limited sample size and poor quality of these studies highlights and supports the need for large scale, good quality placebo controlled trials in this area [42].

Disclosure statement

The author affirms there are no conflicts of interest and the author has no financial interest related to the material of this manuscript.

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鍼灸臨床において痛みをどのように捉えるか？
～腰痛を題材に痛みの診療を考える～

How is pain clinically considered in acupuncture and moxibustion practice?

キーワード：腰痛，筋肉，急性痛，慢性痛，トリガーポイント，圧痛点，情動的因子

Keywords : low-back pain, muscle, acute pain, chronic pain, trigger point, tender point, emotional factor

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痛みは鍼灸臨床で最も多い愁訴の1つであるが，その原因は複雑である。特に急性痛と慢性痛とではその対応も大きく異なることから，その痛みが急性か慢性かを見極めることが何よりも大切となる。一方，痛みの中には原因が明確でないものも多く，その場合は心因性の痛みと解釈されることが多い。しかしながら，一般的な検査で全ての痛みの原因が把握できるわけではなく，筋肉の痛みのように検査では把握できない痛みも存在する。そのため，原因不明の痛みでは筋肉の痛みの可能性など様々な可能性を考慮して，注意深く診察する必要がある。

1. はじめに

「痛み」，その中でも腰痛は患者さんが訴える最も多い愁訴の１つである。しかしながら，腰痛を生じる原因は神経や骨，筋肉や内臓など多様であるため，正確な原因を突き止めるのは難しく，病態把握に難渋するケースも少なくない。さらに腰部は他の部位に比べて慢性化しやすいという特徴があることから，痛みの原因はさらに複雑化している。

このように腰痛は病態把握が難しい上に，慢性化しやすいことから，患者は腰痛の原因を探して病院を転々としているのが実態である。しかしながら，腰痛の診察を難しくしている最大の理由は，①急性痛と慢性痛を区別して診察・治療していないこと，②従来の検査では見極められない腰痛の存在がある可能性を考慮していないこと，の２点に集約される。

そこで，今回は腰痛を題材に，痛みの治療の考え方について考えていきたいと思う。

2. 急性痛と慢性痛を区別する

痛みの診療の中で最も大切なことは，急性痛と慢性痛を区別することである。

一般的に，急性痛における痛みは，警告信号と

しての役割が強い。そのため，急性痛の診療では，警告信号の発信源を見つけるために様々な検査を行うことで原因を追求し，その原因に対して的確な治療を行うことに主眼が置かれている。

一方，慢性痛における痛みは，警告信号としての役割はあまり大きくない。痛みは慢性化すると，疾患や怪我などに由来して起こるだけでなく，ストレスや天気の変化，さらには感情の変化などによっても変化することが知られている。そのため，痛みのある場所を詳しく検査しても原因がはっきりしないことも多い。よって慢性痛の診察では，痛みの原因を見つけることもさることながら，痛みを止めることにその主眼が置かれることとなる。

このように，急性痛と慢性痛では考え方が異なることから，その診察方法や治療方法も大きく異なるが，両者を明確に区別して診察・治療を進めている医療関係者はそれほど多くないのが現状である。実際，慢性化した腰痛では，医療関係者だけでなく患者自身も痛みの原因を探し求めて新しく高度な検査を受け続けており，そのことが状況をさらに深刻化させている。

3. 慢性痛とは何か？

慢性痛は一般的に「急性疾患の通常の経過，あるいは外傷の治癒に相当する期間を１カ月以上越えても持続する疼痛である」と定義される[1]。実際，怪我などの外傷の治癒には通常数カ月かかることから，多くの書物では３～６カ月を超えるものが慢性痛と呼ばれていることが多い。しかしながら，期間が長いというだけで慢性痛と決めることはできない。その理由として，慢性痛は時間的な要素だけでなく，①痛みの原因が除去されたと思われた後も残存する痛みや，②原因の治癒自体が困難で持続するような痛みも含まれる，と定義されているためである。特に，強い痛みや長期間痛みが続く場合には，痛み自体が記憶されることが知られており（可塑的変化），このような場合には診察している現時点では痛みの原因が存在しないこともよくある。よって，慢性痛の場合には，痛みの原因が明らかにならない可能性を念頭に置いて，診察・治療に臨む必要がある。

なお，慢性痛の中には，急性痛の延長としての慢性痛（狭義の慢性痛）と，急性痛の延長とは全く異なる慢性痛（慢性痛症）の２つに分類することも可能である。前者は症状が出現してからある程度時間が経過しているが痛みの部位が局所に限られており，不定愁訴などの訴えが少なく，後者は症状が出現してからある程度時間が経過しており，なおかつ，痛みが広範囲に出現し，不定愁訴などの訴えも多い。なお，前者である狭義の慢性痛は，変形性腰痛症のように原因の治癒自体が困難なために痛みが持続しているものが多く，症状は局所に限定されていることから，治療も局所が中心になる。しかし，後者である慢性痛症は，線維筋痛症のように腰痛以外にも様々な部位に痛みを訴え，痛みの原因が明確でないことが多く，さらには不眠や便通障害など不定愁訴が多いという特徴があるため，疼痛局所に治療をするよりは痛みをコントロールするために全身的な治療が必要となる。このように，同じ慢性的な腰痛でもその治療方法は異なることから，治療に際しては注意が必要となる。

4. 痛みの原因をどのように見つけるか？

急性痛か慢性痛かの区別がついたら，次に痛みの原因を把握することになる。特に急性痛と狭義の慢性痛では原因の把握は必要不可欠である。しかしながら，一般的に，患者は「腰が痛い」と痛みの場所は教えてくれても，「どの組織が痛みの原因か？」までは教えてくれない。そのため，痛みの原因を治療者が突き止める必要があるが，疾