

How Do You *Deactivate Painful Scars* in Your Practice?

STRITTMATER¹ DESCRIBES MANY INSTANCES wherein a scar that is affecting a patient adversely can be treated by needling or cold lasering the corresponding point on the ear. Successful auricular therapy depends on an assessment that leads to the proper selection of points to be treated. Strittmatter also describes the use of Nogier's vascular autonomic signal (VAS) as a means of assessing a scar and its effect on a particular patient's clinical condition.¹

We describe an alternative assessment method that, in our opinion, is easier to learn and requires less time to perform than the VAS. This method combines auricular acupuncture and an applied kinesiology (AK) technique known as *autonomic response testing* (ART).²⁻⁵ Instead of using the VAS to choose auricular acupuncture points, the ART technique utilizes the deltoid muscle strength of a surrogate as the indicator to help determine: (1) if a scar is abnormal; (2) if it affects a particular area of the body; (3) if treating the scar could improve the patient's condition with respect to the presenting complaint; and (4) where the effective treatment point on the ear is for treating the presenting complaint.

This approach can frequently lead to an immediate change in a patient's clinical condition (i.e. decreasing pain, increasing range of motion, and increasing strength). ART is especially useful for addressing musculoskeletal pain and sports injuries. We have had multiple successes using this technique with National Football League (NFL) players and other athletes. We have also had multiple successes treating low-back pain related to Cesarean section scars.

ART²⁻⁵ is a form of AK developed by Dietrich Klinghardt, MD, PhD, and Louisa Williams, ND, DC; it was developed from the AK methods of George Goodheart, DC, Yoshiaki Omura, MD,⁶⁻⁹ and others. AK is a form of manual muscle testing wherein an interpretation is made regarding the response (weakness, no change, or strengthening) of a muscle

to manual muscle testing. The interpretation of the muscle testing can help predict whether the patient will respond with a positive, negative or neutral response to therapies. Many chiropractors and holistic/integrative medicine practitioners utilize some form of AK. In our experience, and in other practitioners' experience, use of a surrogate whose muscle is tested while the surrogate is touching the patient appears to produce more consistent results and is more efficient than testing the patient's muscle strength directly.⁸ Different forms of AK can produce conflicting results.² In our experience, ART produces useful and consistent information most of the time.

ART enables the practitioner to determine which area of the body is abnormal and allows the practitioner to determine causal links between different areas of the body. We use an assistant as a surrogate for the muscle testing. The assistant makes physical contact with the patient. The assistant's left or right hand touches an unaffected part of the patient's body while holding the other arm extended laterally abducted 90°. The practitioner then tests the patient by pressing down on the outstretched arm of the assistant who acts as a surrogate for the patient. The baseline strength of the assistant is noted.

The practitioner then touches various areas of the patient's body while simultaneously testing the surrogate's deltoid muscle strength and comparing it to the baseline strength that was initially established. The surrogate's muscle strength can change when the practitioner touches an abnormal area on the body, such as an acupuncture point, strained tendon, *Ah Shi* point, abnormal scar, etc. Prior to the muscle-testing technique described above, a number of other steps are performed in the ART protocol, using specialized low-technology equipment that differentiates ART from other forms of AK. A detailed description and explanation of the entire protocol is beyond the

Medical Acupuncture is pleased to continue this regular feature, *Clinical Pearls*, which we have found to be very useful for, and practical to, the readership, and very popular. All of us are confronted with clinical challenges, especially when dealing with therapeutic strategies. We hope this ongoing collection of *Clinical Pearls* will be easily accessible and ready to put into action for the benefit of our patients, and even ourselves. How often do we ask our colleagues: "How do you treat...?" This time, we posed the question: "How do you deactivate painful scars in your practice?" Herein lie your contributions. We trust that our readership will continue to participate in this section by either asking the questions or supplying the "Pearls." If you have a "question" you would like to see answered, please send it to our managing editor, Yael Ben-Porat, at: yaelbenporat@me.com We encourage and welcome your input and participation. Please address your answers to "Pearls" to our managing editor, Yael Ben-Porat, at: yaelbenporat@me.com

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scope of this contribution, however, Dr. Klinghardt² presents a video overview on his website.

Phenomena of “Two Pointing”

If an area (“A”) of a patient is found to be abnormal on muscle testing, and another area (“B”) is found to be abnormal, and both A and B are touched simultaneously and the muscle testing reverts back to normal, it is concluded that there is a causal relation between areas A and B. (This reversal phenomena occurs whether the practitioner, the patient, or the surrogate assistant palpates one of the two areas).

An NFL player presented with knee problems and leg weakness. Upon examination, it was noted that this patient’s right hip flexors were weak, his right psoas muscle was markedly tender on palpation, and trigger points were present along the right quadriceps muscle. The patient had three small arthroscopic “well-healed” surgical scars from an arthroscopy of the right knee performed several years before. He denied having knee pain. An ART examination revealed abnormality of the right psoas muscle, right quadriceps muscle, and right knee arthroscopic scars.

The arthroscopic scars “two pointed” to the psoas muscle. That is to say, when the scar and the psoas muscle were palpated simultaneously, the ART testing result was normalized.

It was concluded that the arthroscopic scar was a causal factor of the inability of the psoas muscle to fire fully.

Phenomena of “Three Pointing”

We then “three pointed” the knee region of this patient’s right ear by touching the Nogier Phase 1 auricular knee point of the right ear with a metal probe while the assistant simultaneously touched the psoas muscle. When the two areas were touched simultaneously, ART testing results normalized. Within minutes of needling the ear point for the scar, the patient’s hip flexors became markedly stronger, and the tenderness to palpation essentially disappeared. The patient was flabbergasted that his long-standing problem was relieved dramatically with a tiny needle placed in his ear for his knee scar.

Generally for centrally located organs, such as the Uterus, the ear on the dominant-handed side is tested and needled. For areas that are clearly on one side, such as the right psoas muscle, the ipsilateral ear is tested and treated.

The ART three-point technique appears to enhance auricular acupuncture treatment of scars and identification of body scars causing or contributing to a patient’s medical problems. We are open to collaborations with other colleagues to develop a research agenda to confirm or disconfirm our conclusion.

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Myung Kyu Chung, MD¹

Patrick J. LaRiccia, MD, MSCE^{2*}

¹Department of Family Medicine

Cooper Medical School of Rowan University

Camden, NJ

²51 North Market Street

Penn-Presbyterian Medical Center

Philadelphia, PA 19104

*Address correspondence to:

Patrick J. LaRiccia, MD, MSCE

E-mail: lariccip@mail.med.upenn.edu

THIS CONTRIBUTION DEALS WITH EXTERNAL SCARS (skin and musculoskeletal); deeper scars, such as intra-abdominal surgical scars, are excluded.

Scars are areas of fibrosis that replace normal tissue after injury. Some are *contractile scars* that form after the contractile healing process in a scar that has already been epithelialized and healed.¹ *Hypertrophic scars* are fibrous tissue *outgrowths* that form from a derailment of a normal healing process. When a hypertrophic scar extends beyond the wound margin, it is a *keloid*.²

Globally, ~75 million people develop postsurgery scars each year.³ Scar tissue becomes painful when there is damage to a small nerve or when a nerve is entrapped within the scar.⁴ Sometimes there is a neuroma formation at the end of a damaged nerve. Squeezing a certain part of the scar may be painful. Modern medicine treatment involves cognitive–behavioral therapy, antidepressants, rehabilitation,

neuropathic pain medication (pregabalin), capsaicin cream, transcutaneous electrical nerve stimulation, local injection of steroids with local anesthetics, nerve blocks, and nerve-root blocks.

In Chinese Medicine (CM), a painful scar is an example of Bi syndrome or Chronic Painful Obstruction syndrome, meaning that there is an obstruction to the free flow of Qi and Blood in the channels. This is a channel syndrome and the treatment has to be channel-based.

Muscle meridians are branches of the principal meridians (PMs), and through the muscle meridians, the PMs exert their influence on the periphery of the body. The muscle meridians have almost identical trajectories as PMs. All PMs begin or end at the base of a nail with the exception of the Kidney meridian, which begins at the sole of the foot. These are the *Ting Well* points. All PMs have a Tonification point either below the knee or below the elbow (see Table 1). The muscle meridians differ from the PMs in that they have no connection with the internal organs and the flow of Qi in them is always in a centripetal direction from the periphery to the center, irrespective of the direction of flow in the PMs to which they belong.⁵ When one stimulates the *Ting Well* point, there is a surge of Qi at that point, and, when one stimulates the Tonification point, the flow of Qi is accelerated.

In some meridians, *Ting Well* and Tonification points are the same. In that case, use a Source point instead of a Tonification point. To facilitate the flow further, the meeting points of the corresponding meridians are stimulated (see Table 1). All these points are stimulated using the reinforcement method. The painful area is where the Qi is blocked, and that area is stimulated using the reduction method. This is more effective when one uses electroacupuncture (EA; 10 mA/4 Hz) for up to 20 minutes at the tender points around the area of the scar. All these points are stimulated bilaterally except the Tonification point, which is stimulated only on the side where the pain occurs. This approach is taken to create an asymmetrical situation, which makes the stimulation more dynamic.

The Penetrating Vessel is the Sea of Blood; stimulation of this vessel relieves Blood Stagnation anywhere in the body. This is achieved by reducing SP 4 (Rt), PC 6 (Lt), in that order, for women; and SP 4 (Lt) and PC 6 (Rt), in that order, for men.⁶

Also one should reduce BL 17 (*Back Shu* point for Blood) and SP 10 to reduce Stagnation of Blood further.

If the scar is confined to the skin, one can just use EA (10 mA/4 Hz) for 20 minutes at points around the scar tissue. If this is not sufficient, other steps, as described above, may be taken. In cases of musculotendinous scars, such as rotator-cuff syndrome, all the abovementioned steps would be necessary. For example, if the pain were over the anterior shoulder (LI meridian) on the right side, one would reinforce LI 1 on both sides (*Ting Well* point), reinforce LI 11 on the right side only (Tonification point), and reinforce GB 13 bilaterally (meeting point). One should reduce all tender points (*Ah Shi* points) electronically over the anterior shoulder. If the pain is over the posterior shoulder, the involved meridian would be the Small Intestine channel and the corresponding points of that channel would be used (see Table 1).

ST 38 is an important additional point for addressing anterior shoulder pain. If one looks at the circulation of Qi, the first circulation starts at the Lung meridian. This connects at the index finger to the Large Intestine meridian, and then connects to the Stomach meridian in the face, flowing down to the foot through the Stomach meridian, which connects with the Spleen meridian and then back to the Lung meridian. There are two axes here: (1) Large Intestine + Stomach and (2) Lung + Spleen meridians. Use of distal points are very effective in resolving channel problems and, in the case of the anterior shoulder (the Large Intestine channel), the distal point should come from the Stomach channel (the same axis). That is why ST 38 is such an important point for resolving anterior shoulder pain. If it were a posterior shoulder lesion, the corresponding point would be BL 58 (Small Intestine, Urinary Bladder axis). This

TABLE 1. *TING WELL*, TONIFICATION, SOURCE, AND MEETING POINTS OF MUSCLE MERIDIANS

<i>Meridian</i>	<i>Ting Well points</i>	<i>Tonification points</i>	<i>Source points</i>	<i>Meeting points</i>
Lung	LU 11	LU 9	LU 9	GB 22
Pericardium	PC 9	PC 9	PC 7	GB 22
Heart	HT 9	HT 9	HT 7	GB 22
Spleen	SP 1	SP 2	SP 3	CV 3
Liver	LR 1	LR 8	LR 3	CV 3
Kidney	KI 1	KI 7	KI 3	CV 3
Large Intestine	LI 1	LI 11	LI 4	GB 13
Triple Burner	TB 1	TB 3	TB 4	GB 13
Small Intestine	SI 1	SI 3	SI 4	GB 13
Stomach	ST 45	ST 41	ST 42	ST 7/SI 18
Gall Bladder	GB 44	GB 43	GB 40	ST 7/SI 18
Bladder	BL 67	BL 67	BL 64	ST 7/SI 18

would then be followed by SP 4 + SP 6, BL 17, and SP 10, as described above.

It is an axiom in CM, to treat Phlegm in any recalcitrant case and, if a case is resistant to treatment, even if there are no signs of Phlegm—such as a swollen, thickly coated tongue and a slippery pulse—one should reduce SP 9 and ST 40 to resolve the Phlegm. The current author treats such cases with acupuncture twice per week for 8 weeks and then at monthly intervals until relief is obtained. Neuropathic pain usually resolves slowly.

Although the abovementioned method is effective, the result in many cases may be short-lived. The concomitant use of Chinese herbal preparations—such as Miraculously Effective Invigorating the Connecting Channel Pill or Three Treasures Benefit the Sinews Remedy—usually helps prolong the effects of acupuncture, thus reducing the frequency and number of treatments, as they reduce Blood Stasis.

Homeopathic Lachesis 30c (resolves Blood Stasis), at a dose of 5 drops daily for 3 days and then twice a week, can be used instead of Chinese herbs, often with better results, as both systems work through the Life Force. In the current author's experience this combination has helped in nearly all cases with varying levels of improvement.

In intractable cases one can apply Battlefield Acupuncture,⁷ using bilateral stimulation of auricular points—Cingulate Gyrus, Thalamus Point, Omega 2, Point Zero and ear *Shenmen*.

Evidence for Acupuncture

Scar pain is an example of neuropathic pain.⁴ Studies show beneficial effects of acupuncture on neuropathic pain.⁸ Fang reported on a case of severe scar pain treated with acupuncture, with reduction of pain from 7 to 1 on a Likert scale of 0^o–10.⁹ Kitade et al. reported beneficial effects of acupuncture on scar-pain syndrome as cited by Fang.⁹ Song et al. reported a 93.9% effective rate in relieving pain in hypertrophic scars with acupuncture in 40 cases, compared to placebo.¹⁰

All treatments should be undertaken by a suitably qualified medical practitioner.

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Poovadan Sudhakaran, MBBS, PhD,
MastACU, MastTCM
26 Tuckers Road
Templestowe, 3106
Australia

E-mail: dr.p.sudhakaran@gmail.com

THERE ARE HONORABLE EXCEPTIONS, of course, but surgeons in general regard an operation as successful if they can discharge a patient to go home, irrespective of postsurgical pain. In 1971, Ranger and colleagues reported on patients with continuing appendix-like pain despite appendectomy. These clinicians suggested that this was caused by nerve entrapment, and reported that they relieved the patients' pain by local anesthetic injection into the scars.¹ Since then, others have injected saline, sterile water, homeopathic remedies, and caffeine, all similarly relieving pain in various surgical scars. The important element seems not to be the agent used, but the needling—acupuncture is equally as effective.

Scar pain occurring immediately after surgery is usually caused by nerve or tissue damage from the operation, but pain may not develop until some months later as the scar tightens and nerve entrapment occurs. Pain in the scar itself (superficial or deep) is common, but pain related to the scar may also be referred locally to adjacent muscles and other tissue, or distantly within the nerve-root distribution so that, for instance, abdominal scars can sometimes relate to back pain.

The history, particularly that of past surgery, should give pointers to the possible implication of scars, but a careful

examination is needed to confirm this. Start by using one finger to palpate gently along the full length of the scar noting points of tenderness, then press again more deeply. The tender spots often seem to occur at soft areas of the scar, where the deeper tissue seems deficient. Continue with palpation around the scar on both sides and extending for a few centimeters at each end. Finally, examine areas of reported local or distant pain together with related muscles, including stretching or movements that reproduce the pain, checking associated trigger points.

In general, needling of scars should be superficial, particularly if there is a prosthesis or mesh from the surgery, as there is then an increased risk of infection. If there are few tender spots, I needle directly into each, although often a tough scar necessitates inserting the needle obliquely from the side. If there are many tender points, I use a pair of longer needles horizontally, just under the skin from either end, one on each side of the scar. Sometimes, I stimulate manually, but more often I use electroacupuncture (EA) at Han frequencies (2/100 Hz). In addition, I needle any trigger points found in associated muscles or related to distant referred pain within the nerve-root distribution. There is usually some response following a single treatment (10 minutes of manual acupuncture or 20 minutes of EA) but I find that three or four sessions often produces permanent success.

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*Simon Hayhoe, MSc, MBBS
Pain Management Department
University Hospital
Turner Road
Colchester CO4 5JL
United Kingdom*

E-mail: simonhayhoe@doctors.org.uk

PAINFUL SCARS SECONDARY TO STERNAL WOUNDS after cardiac surgery are common. Chronic poststernotomy pain (CPSP) is a prevalent complication after cardiac surgery operations, accounting for 30% of postoperative cases.¹

I report here about a 40-year-old female patient, who was referred to the Outpatient Pain Clinic of National Research Centre in Cairo, Egypt, 3 months after mitral-valve replacement at the Cardiac Surgery Academy of Ain Shams University. She complained of pain and discomfort over the sternotomy incision, extending to her upper limb and the anterior chest wall. Her visual analogue scale (VAS) pre-treatment score was 8.

Upon inspection, it was noted that the patient's tenderness was localized along the sternal incision and hypertrophy was evident. Trigger points were identified in the trapezius and pectoral muscles according to Simon and Gerwin's diagnostic criteria.²

Methods

Stainless steel acupuncture needles (SEIRIN,® 0.25 mm) were inserted at the following acupuncture points: LI 4, 11; ST 36; PC 6; and LR 3.

In addition, an intralesional injection of lidocaine 1% (0.1 mL) in the localized trigger points and along the sternal hypertrophied incision (using sterile 22 gauge syringes) was performed. This combined therapy was given twice weekly, for 4 consecutive weeks (comprising 8 sessions).

RESULTS

The patient reported remarkable improvement, with decreased pain sensation along the scar and the adjoining upper chest wall (VAS = 2–3).

CONCLUSIONS

CPSP is a challenging chronic pain condition that can affect scars following cardiac surgery. Acupuncture sessions and intralesional injection of local anesthetics have helped relieve pain associated with this condition. Further research on the possible etiology and proposed management is required.

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*Hemat Allam, MD
Medical Division
National Research Centre
Elbohouth Street
Dokki 12662, Cairo
Egypt*

E-mail: allamhemat@gmail.com

SCAR TISSUE USUALLY FORMS after deep traumas, such as piercings, burns, and surgery, to the dermis. Globally, ~75 million patients develop scars after surgery each year. Acupuncture is an important part of Traditional Chinese Medicine (TCM), and, in TCM theory, scar tissues are considered to be Qi and Blood Stagnations in the *Ying* and *Wei* levels (the superficial levels) as a result of trauma. The *Ying* Qi and *Wei* Qi cannot move smoothly through the scar area to defend and nourish it. Thus, there may be pain, itching, numbness, or other abnormal feelings.¹

Transforming growth factor- β (TGF- β) plays a central role in wound healing and scarring, which subsequently trigger extracellular matrix deposits and collagen overproduction. TCM can reduce expression of TGF- β , resisting fibrosis, to lessen development of scar tissue and accelerate wound healing.² Hence, acupuncture is not only commonly used to treat pain³ but is also used to treat scars, playing an important role in the correct healing process.⁴

The following acupuncture points could be used to treat painful scars: LI 4 (*Hegu*) and ST 44 (*Neiting*) are the best analgesic points; GV 20 (*Baihui*) and HT 7 (*Shenmen*) are the best sedatives and tranquilizing points^{5,6}; and GB 34 (*Yangneungcheon*) is known to have an effect on pain and motor dysfunction,⁷ and could be used to reduce scar-related pain and to improve the patient's well-being.

TCM theory considers scar tissues as Qi and Blood Stagnations in the *Ying* and *Wei* levels (the superficial levels). A combination of LI 4 and LR 3 (*Taichong*) has been reported to have a strong effect in moving Qi and Blood. Hence, addition of LR 3 could be considered.¹ Given that healing plays a vital role in the development of painful scars, acupuncture points such as LI 11 (*Quchi*) and ST 36 (*Zusanli*) could play a vital role in improving immunity and homeostasis.^{5,6} *Ah Shi* points (i.e., the points that exist in the vicinity of the diseased part) are the effective stimulation points used to promote the healing process.⁵

In previous studies on painful scars, acupuncture needles "Circling the Dragon" up to ten small needles were placed in healthy skin as close to the edge as possible, ~1 cm apart (*Ah Shi* points), with no stimulation.⁴ Very thin needles were placed on an area considered painful or fibrotic.⁸

A case of a painful surgical scar was treated with acupuncture.¹ In all three articles, acupuncture was shown to have promising results.

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L. Nivethitha, BNYS, MD (AM), PhD(cand)¹

A. Mooventhan, BNYS, MD^{2*}

and Hemant Bhargav, MBBS, MD, PhD²

¹Department of Acupuncture

²Department of Research and Development

Swami Vivekananda Yoga Anusandhana Samsthana

S-VYASA University

No. 19, Eknath Bhavan, Gavipuram Circle

Kempe Gowda Nagar, Bengaluru 560019

India

*Address correspondence to:

A. Mooventhan, BNYS, MD

E-mail: dr.mooventhan@gmail.com