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The Effects of Hand Reflexology on Chronic Hand Pain

Introduction:

Chronic pain is defined as pain lasting longer than several months (which is usually defined as 3-6 months). It is a common problem, growing more so as people get older. It might result from underlying health conditions, injuries, inflammation, or problems in the nervous system. It can often affect one's quality of life and productivity, and it could be coupled with difficulties in movement, disrupted sleep, anxiety, and depression.¹

There are several possible causes for chronic hand pain, including arthritis, carpal tunnel syndrome, and tendonitis.

Previous Literature:

There are a few studies showing the effectiveness of foot reflexology and pain management in various parts of the body ("Research: Reflexology Makes a Difference in Response to Pain"², "The Effects of Foot Reflexology on Pain and Depression of Middle-aged Women with Osteoarthritis"³, and "Reflexology Applied as a Pain-Killer – Observation of 60 Cases"⁴) but there does not appear to be much research published regarding the effectiveness of hand reflexology and pain.

Objective:

The purpose of this study is to explore the effect of hand reflexology on one case of chronic hand pain.

Subject:

The Subject is a 57-year-old female self-employed artist. In her health intake, she reported arthritis (self-diagnosed) and inflammation in hand and wrist joints, occasional numbness in ends of fingers, several car accidents/whiplash in the past, neck pain and headaches (which she reports are getting better as stress levels decrease), and recent surgeries (1-2 years ago) due to gallstones and then pancreatitis; a total of five operations over three months.

Due to daily use of hands as an artist, she reports having a lot of pain and tension in her hands and arms, especially the right thumb and wrist. She reports being ambidextrous following a car accident where she hit her head and got a concussion at age 25.

Her occupation as a self-employed artist is divided between creation and production, and selling at outdoor markets. The markets involve a lot of standing and physical labor, as she sets up and breaks down her stall on her own. Because she does it all herself, she says it does take a toll, but she likes what she does. Dealing with the public forces her to be "on" for hours at a time, which she finds tiring by the end of the day. Markets are one or two times a week.

On the creation and production side, there is a lot of sitting at the desk or computer, with

painting, drawing, signing, and printing. It's not heavy duty work, but she works constantly with her hands with pens, paintbrushes, and other artist tools such as palette knives. Occasionally, she gets involved with larger scale projects like murals, which are harder on her upper body. Subject feels pain the most when she's under a lot of stress (from hurricanes, ex-husbands, long market days) Current daily stress levels are pretty low (around a two, on a scale of zero to 10) as she leads a fairly relaxed lifestyle, but about a year ago, it was much higher. Subject reports seeing "the possibility of not being able to do stuff" if she doesn't start taking better care of her health.

Subject claims she manages her pain with stretching, exercises, occasional meditation for relaxation, occasional massage and reflexology, and as needed aspirin/Advil. She states she has been drinking nettle tea daily prior to study which seems to help her hand pain, but she will discontinue use during study period. Subject agrees to use no other modalities during study period, and will record if she needs to take a pain relieving agent.

This study will be presented from the perspective of the Subject as well as the Therapist.

Treatment Plan:

The study will consist of 8 hour-long sessions, once a week, on Tuesday mornings at 9am.

Each session will be exclusively hand reflexology, beginning with the left hand each time. After a few relaxation techniques to warm up the hands (including compression on both sides of forearms) and thumb/finger walking both palmar and dorsal sides of the hand, the reflexes/areas to be concentrated on are the entire thumb, the area of the hands between the waist line and pelvic line on both dorsal and palmar sides, and the adrenal reflexes.

The Subject is asked to track the following in a log-book between sessions: pain levels in thumbs, index fingers and wrists, her energy level, and whether pain affected her daily activities.

Session 1 (10/24/17)

Subject reports feeling achy this morning. She states she was working on a mural recently, which she says causes her more soreness because of awkward angles and different tools than she usually uses.

Areas of congestion noted by Therapist:

R hand palmar: zone 1&2 pelvic line (PL), zone 1 proximal phalanx

L hand palmar: zone 1&2 PL, zone 1 proximal phalanx

Areas of sensitivity noted by Subject:

R hand palmar: zone 1&2 PL, zone 2 proximal to waistline (WL)

R hand dorsal: zone 1 proximal to PL, zone 2 between WL and PL

L hand palmar: zone 4 distal phalanx (Subject reported feeling it in her throat), zone 1 between shoulder line (SL) and PL, also just proximal to SL.

L hand dorsal: zone 1&2 proximal to PL

After session, Subject reported that now she had "fabulous hands" and started singing "I Feel Good!" She also reported "you found places in my wrists and forearms that I didn't know hurt."

Session 2 (10/31/17)

Subject reported that after feeling “exhausted” for the rest of the day after last week's session, she was “booming with energy” the next day. She also reported feeling good the rest of the week, with no need for the nettle tea that she usually drinks daily to help with pain, and she hasn't used any pain meds either. She reported feeling tired after her weekend market showings “but not as trashed as I should have been!” Today she reports feeling achy “possibly because of the weather” and mentioned that yesterday she “tapped [her] thumb on a grocery bag and felt severe pain”, though it has now subsided.

Areas of congestion noted by Therapist:

R hand palmar: zones 1-4 between WL and PL

L hand palmar: between zones 2&3 between WL & PL, zone 5 distal phalanx

Areas of sensitivity noted by Subject:

R hand palmar: zone 1 SL, zone 1 PL, zone 2 between SL & PL

R hand dorsal: zone 5 distal to WL, zone 2 proximal to diaphragm line (DL), zone 2 proximal to WL

L hand palmar: zone 2 proximal phalanx, zone 1 between SL & PL

L hand dorsal: between zones 1&2 from WL to PL, between zones 2&3 SL, zone 4 proximal phalanx

After session, client reported hands “feeling good - I'm in coma-land (*said in a humorous tone*)! My right hand feels different - a weird, empty kind of sensation...but much better with reduced pain.”

Session 3 (11/7/17)

Subject reported feeling achy in wrists and thumbs for the three days after the last session, but she also notes it was right after Halloween, so her sugar intake was much higher than normal. The rest of the week, though, she noted feeling better with just periodic pain/weakness in right thumb near wrist. She mentioned she still has not had any nettle tea, and noted that her hands feel comparable to if she had been drinking it.

Areas of congestion noted by Therapist:

R hand palmar: zone 1 proximal to SL

L hand palmar: zone 5 between SL & DL, zone 3 PL

Areas of sensitivity noted by Subject:

R hand palmar: zone 1 from interphalangeal (IP) joint to between SL & PL between zones 2&3 proximal to PL

R hand dorsal: zone 4 DL, zone 2 between DL to proximal to WL, zone proximal to PL

L hand dorsal: zone 1 distal to IP joint, zone 2 distal to SL, zone 3 intermediate phalanx

After session, Subject reported right thumb joint still feel sore, but overall “hands feel great and I'm really relaxed!”

Session 4 (11/14/17)

Subject reports that the day after the previous session, her hands “felt so good—almost

freakishly good—better than before.” After a few days, the weather got cold, and she had two outdoor shows and she reported feeling tired and sore, though “more stiff than hurting.” One of those days, she reported experiencing pain in her wrist when holding a baby: “I almost dropped her when my wrist bent back because of the sudden pain!” She noted that she loads and unloads her truck after shows by herself, and that she realized this week that she should be wearing gloves for protection. Today, she reports feeling “ok but a little blah,” and still has not had any nettle tea or pain meds.

Areas of congestion noted by Therapist:

R hand palmar: zone 2 and between zones 3&4 between WL & PL

L hand palmar: zone 2 between WL & PL

Areas of sensitivity noted by Subject:

R hand palmar: zone 1 between IP joint & PL, between zone 1&2 WL

R hand dorsal: zone 1 between IP joint & SL

L hand palmar: zone 2 distal to PL

After session, client reported feeling “sleepy and relaxed” and that hands “feel better than when I came in.”

Session 5 (11/21/17)

Subject reported that she felt very tired the evening after the previous session. She reports her hands feel a little stronger, although sometimes “my right thumb feels a little too loose.” Generally, she reports feeling “much improvement” and still hasn't needed any nettle tea. She mentioned she remembered to use gloves during loading/unloading, but she “smacked [her] right index finger accidentally just after taking the gloves off!”

Areas of congestion noted by Therapist:

R hand palmar: zones 1&2 PL

Areas of sensitivity noted by Subject:

R hand palmar: zone 1 from IP joint to PL, zone 2 DL, zone 2 PL

L hand dorsal: zones 1-5 PL, zone 1 between SL & PL, zone 5 SL

After session, Subject reported feeling “very relaxed” and mentioned her hands felt good.

Session 6 (11/28/17)

Subject mentions that her hands have hurt a lot this week, but notes the weather has been wet and cold, and she says she ate too many rich foods on Thanksgiving (last week) and she has had pancreas issues, so she's been feeling sick. She noticed numbness in both hands in fingers 1-3, but also notes that her fingers feel stronger and have more control. She has also realized that when she's stressed, she makes fists and flexes them at the wrist. Today she reports her hands feel stiff, and she's “just been lounging around this morning, still feeling a little sick, digestively-speaking.”

Areas of congestion noted by Therapist:

R hand palmar: zone 1 between IP joint and SL

Areas of sensitivity noted by Subject:
R hand palmar: zone 1 SL, zones 1-5 PL
L hand palmar: zones 1- 5 PL

After session, Subject mentioned that “at the beginning of the session, my right thumb felt like it was attached by barbed wire” but she noted that the feeling was now reduced. She also mentioned feeling relaxed after getting up from the table.

Session 7 (12/5/17)

Subject reports that her hands hurt for a day or so after the last session, but mentions they feel like they have a lot of strength, and that the numbness in fingers she'd felt before the last session went away after a day. Today, she reports feeling pretty good with a little stiffness in the right index finger. She states that, overall her hands are feeling better.

Areas of congestion noted by Therapist:
R hand palmar: zone 1 between SL & PL, zones 1&2 PL
L hand palmar: zone 3 PL

Areas of sensitivity noted by Subject:
R hand palmar: zone 1 proximal to SL
R hand dorsal: zone 4 proximal to DL, zone 1 SL, zones 2&3 PL
L hand palmar: zones 2&3 PL
L hand dorsal: zones 2&3 PL, zone 4 DL

After session, Subject still noticed soreness in her right thumb, but she notes that her hands “overall feel better.”

Session 8 (12/12/17)

Subject reported that last week she “did a lot of drawing, but considering the cold weather and extra drawing and painting, [her hands] are doing pretty well!” Today she reports her hands and wrists are a bit achy from the cold and from painting yesterday at awkward angles.

Areas of congestion noted by Therapist:
R hand palmar: zone 2 between WL & PL, between zones 2&3 proximal to PL

Areas of sensitivity noted by Subject:
R hand palmar: entire thumb to zone 1 proximal to PL, zone 2 proximal to PL
R hand dorsal: zone 1 IP joint, zone 2 between WL & PL
L hand palmar: zone 2 between WL & PL
L hand dorsal: zone 1 IP joint, zone 2 proximal to PL

After session, Subject noted her “hands feel looser and better, but right thumb still feels a little sore.”

Results:

Nine days after the last session was completed, the Subject reported still having some aches and pains in her hands and wrists, but overall, she feels her energy levels are very good and her hands feel stronger after having received reflexology sessions. She reports not

having any of the nettle tea (which she used to have at least daily) since the beginning of the study sessions nine weeks ago.

Two weeks later, she gave a final update, saying her hands had been “amazingly fine through this cold weather...my writing has changed due to how I hold pens and pencils, and I have more control when I draw too.”

As a Therapist, I noticed a genuine enthusiasm from the Subject regarding her sessions, and she appeared to become more mindful of her own self-care, such as noticing her own habit of clenching her fists when stressed, and realizing the gloves would be a good idea to protect her hands with gloves during manual labor. It also appears extremely positive to me that she reported not needing to use her nettle tea or other pain meds during the study period, and even after the reflexology sessions had ended.

Recommendation:

Due to the positive results the Subject mentioned experiencing, I would recommend continuing with weekly sessions, concentrating on the same areas. Additionally, due to her frequent work with her hands, she would likely find additional benefits with hot and cold therapy applied to her hands and forearms.

Conclusion:

Though it's not possible to generalize from just one study the results reflexology would have on the entire population of those suffering from chronic hand pain, I believe the results of this study warrant continued exploration of the use of hand reflexology with this population.

Resources

- 1) <https://nccih.nih.gov/health/pain/chronic.htm#hed2>
- 2) http://www.reflexology-research.com/?page_id=109
- 3) http://www.koreascience.or.kr/article/ArticleFullRecord.jsp?cn=HKJHBX_2006_v9n1_25
- 4) <http://www.kevinkunz.com/reflexology-research-old/Abstracts.html> (Jin Hui, "Reflexology Applied as a Pain-Killer - Observation of 60 Cases")