

Clinical Report 1 (Acupuncture)

Rubbing Acupuncture Method: A Case Report for Dementia

Haruo Yoshimura

Care Prevention Committee, Japan Acupuncture &
Moxibustion Association
Yoshimura Acupuncture & Moxibustion Clinic

1. Introduction

The Ministry of Health, Labour and Welfare estimates that the number of elderly persons with dementia at a degree of independence level II or higher totaled 2.2 million as of 2010, and will continue to increase hereafter to 4.7 million in 2025. People of the baby-boom generation will all become age 75 or older in 2025. It is a reasonable figure when considering today's rate of increase of elderly people with dementia, and requires urgent measures to be taken hereafter.

Under this situation, focusing on the peripheral symptoms of people with dementia reveals symptoms that are thought to occur from emotional stress, such as anxiety, restlessness and loss of confidence, and symptoms that occur from an imbalance of the autonomic nerve system. This is similar to autonomic nerve imbalance and stress that are triggered by a baby crying at night or baby colic. In simple terms, it was thought that if the cause is the same, the same treatment method might apply, and thus pediatric acupuncture came to mind. Pediatric acupuncture involves rubbing the skin as a procedure for treating night-crying and colic in babies, and has been popularly practiced in Osaka since ancient times. It was thought that the procedure could regulate the autonomic nerves and mitigate the peripheral symptoms of dementia.

Based on this thinking, this writer developed an original rubbing acupuncture tool for adults called SAKKA (the term 'sakka' means rubbing in Japanese), and launched a procedure that uses SAKKA, Enrishin round-head needles and roller needles to rub the skin. Because it does not harm the body in any way, SAKKA not only provides

reassurance to those receiving the treatment as an extremely safe method, but can be applied conveniently, and has high reproducibility.

The rubbing acupuncture method has already been applied to a total of some 6,400 elderly people with dementia living in group homes in Osaka City, over a period of nine years. The following is a report that focuses on one of those cases.

2. Case

The subject is an 88-year-old widow who lived alone, as her son and daughter had already gone out on their own. Two years ago, she lost her balance and slowly collapsed on a bicycle that was parked in the yard in front of her house. She suffered a simple fracture of the femur. She had an operation to set her bone using a metal plate, but became unable to walk. Her dementia advanced sharply after the operation, to the point that she became unable to comprehend where she is. Her children could not live with her because of their jobs and families, and the difficulty of providing at-home nursing care made it impossible for her to live alone. Upon being discharged from the hospital, she was admitted to a group home. Unable to walk on her own, she depended on a wheelchair to move around. Her upper limbs were fine, she could eat, wash her face, and get dressed on her own. She required some assistance to defecate and bathe. She was able to turn over in her sleep by herself, but required some assistance to get up and transfer to her wheelchair. She spent a long time lying down. She used eyeglasses, but her vision was normal. So were her senses of hearing and smelling. When she was first admitted to the nursing home, she was certified as requiring a nursing care level of 4, and had a degree of independence level of IIIb. She displayed an extremely strong desire to go home, and would repeatedly and with frustration ask the staff to let her go home, whenever she spotted any staff member. She had a strong tendency to refuse nursing care, stemming from her helplessness in having things

her way. She was diagnosed with mixed dementia, with characteristics of both Alzheimer's disease and cerebrovascular dementia. She suffered depression, insomnia, anxiety and restlessness. She displayed a level 8 on the face scale, and had a sad expression. She has no past medical history, and took no medicine for her dementia. She had never experienced acupuncture and moxibustion, and had a sense of fear of being pricked by a needle.

1) Method of treatment

A KN petit roller, Enrishin needle and SAKKA (rubbing acupuncture tool) were used to rub the skin. Each procedure consisted of the following routine from (1) to (9) as the basic procedure. (Figure-1)

- (1) Rub the anterior surface of the forearm along the meridian flow from the elbow to the fingertips with a KN petit roller
 - (2) Rub the posterior surface of the forearm along the meridian flow from the fingertips to the elbow with a KN petit roller
 - (3) Trace the eyebrows from the inner to outer side of the face with a KN petit roller
 - (4) Trace the eyebrows from the inner to outer side of the face with an Enrishin needle
 - (5) Rub the temporal muscles on both sides of the head in a fan-like manner with an Enrishin needle, toward the Kakuson acupoint as though to stretch the muscle
 - (6) Rub from the top of the head to the forehead with an Enrishin needle
 - (7) Rub from the top of the head to the nape of the neck with an Enrishin needle
 - (8) Rub both sides of the dorsal spine diagonally downward from top to bottom, with a KN petit roller
 - (9) Rub both sides of the dorsal spine diagonally downward from top to bottom, with a SAKKA
- * In all cases, the procedure was applied with careful attention to rubbing intensity, in consideration of the patient's skin condition, state of perspiration, and reddening of the skin.

The procedure was completed when the patient's skin became moist and a general reddening appeared.

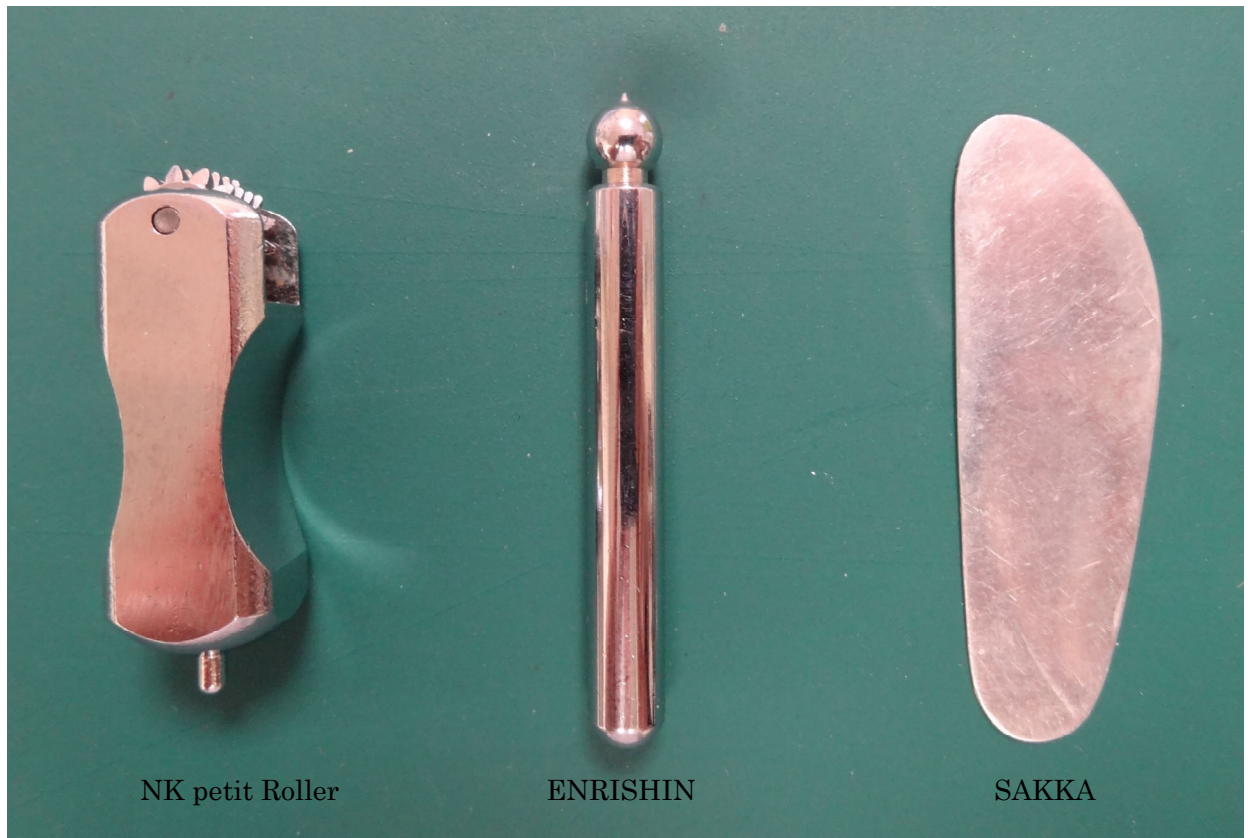
- * With the progress of treatment, the patient became able to walk, but nighttime pains occurred from a circulatory deficit in her lower limbs, so rubbing was also performed on her lower legs using a roller needle.
- * Observations were made of changes in the degree of peripheral symptoms, changes in expression according to the face scale (Figure-2), changes in expression according to the staff's response a question, and changes in care burden, as evaluation criteria.

2) Result

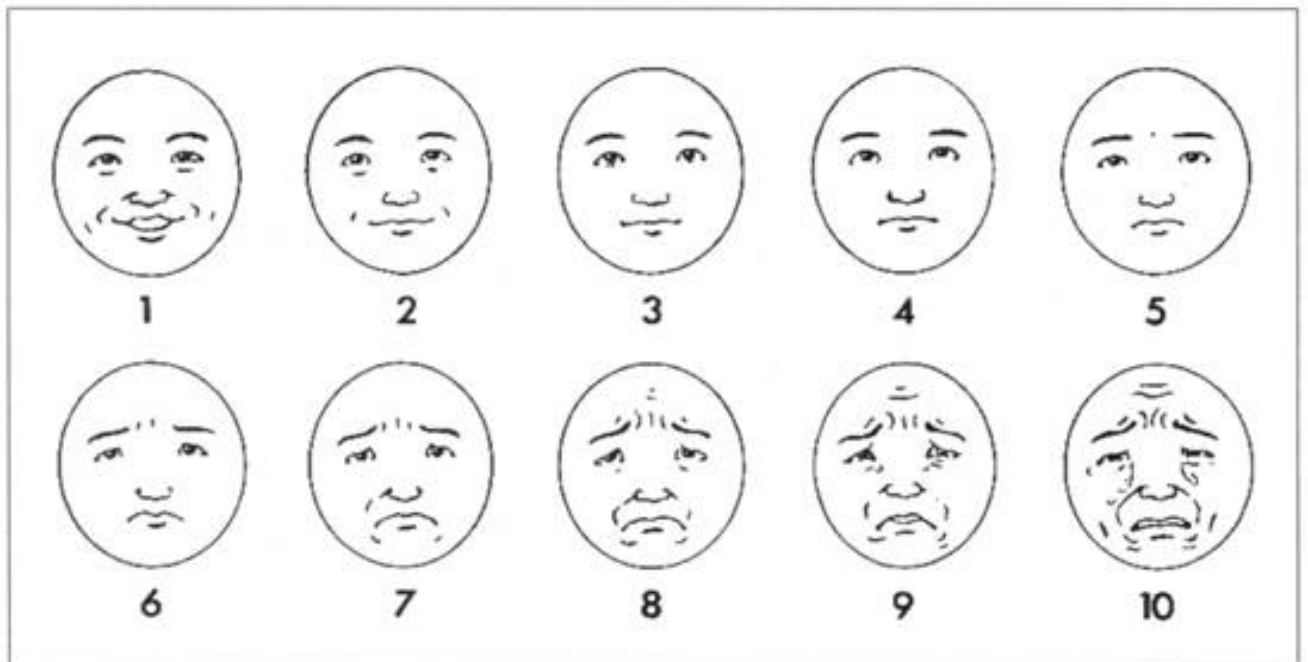
The procedure was applied once a week 26 times from June 5 to November 27, 2013.

1st treatment (6/5): The patient had no experience with acupuncture and moxibustion, so she had a worried expression when she heard the term acupuncture. The treatment was applied with the patient sitting in a wheelchair escorted by a nursing staff. After the treatment, the patient's expression improved from a level 8 to level 3 on the face scale (Table -1), and a smile appeared on her face, although it was still somewhat stiff. She voiced that she felt good. Basic treatment.

2nd treatment (6/12): The treatment was applied with the patient sitting in a wheelchair. She remembered the previous treatment, and expressed her opinion that it had felt good. Her unhappy feelings disappeared even before the treatment, and her depression also abated. She was smiling from before the treatment, without any stiffness. She said the area where she had surgery for her right femur fracture hurt, and she also had lower back pain. She spoke actively. Expression level 2 on the face scale. Basic treatment.

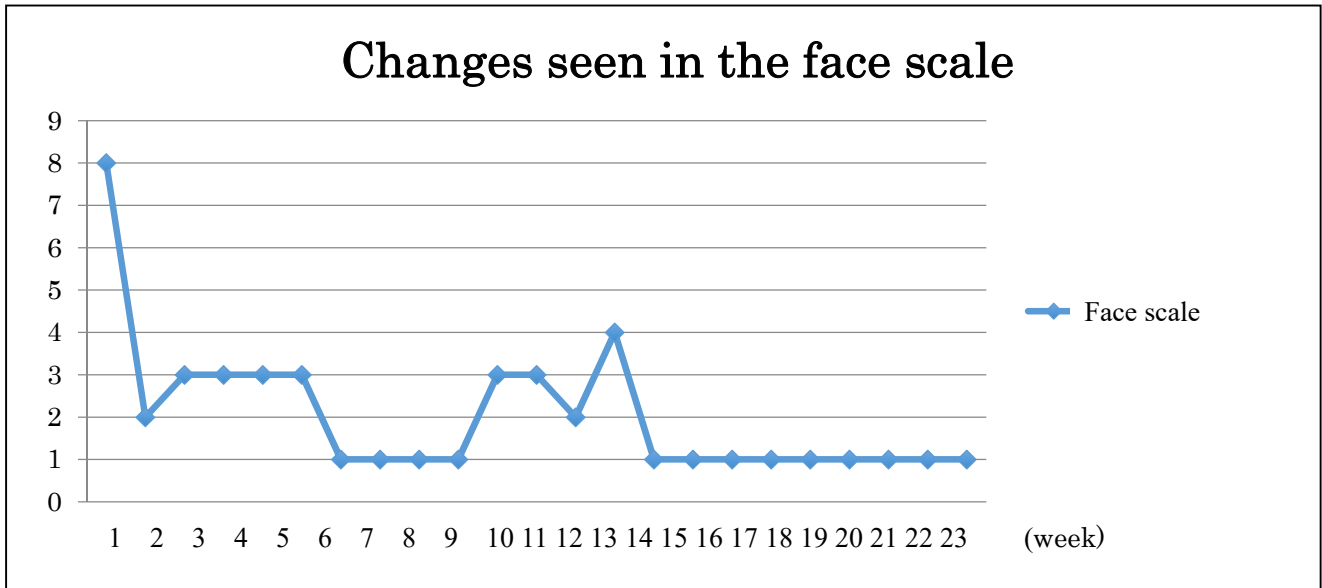


(Figure 1)



(Figure 2 Face scale)

(Table 1)



3rd treatment (6/26): The patient voiced her feeling that the treatment felt good. However, she seemed slightly out of sorts, and her smile was somewhat stiff. She talked much about her family, and desired to go home. She had been refusing to bathe, but with some prompting, she took a bath immediately after the treatment. Expression level 3 on the face scale. Basic treatment.

4th treatment (7/3): The patient came to the treatment room not on a wheelchair, but using a walker. She said she had been doing walking exercises since she came to the nursing home, but she found it difficult to walk. After the treatment, she noted that she felt good. Her smile seemed stiff, perhaps because she was tired due to her walking exercise. Expression level 3 on the face scale. Basic treatment.

7th treatment (7/24): The patient was using her walker. Her post-operative progress was good. She volunteered that she has begun to feel good, and that she had been looking forward to the day's treatment. She talked about her house and her family without any sense of anxiety or restlessness, and her desire to go home seemed to have weakened. She no longer called on the staff

and repeatedly asked to be taken home. She came to her treatment with a full smile on her face. She had been refusing to bathe, but with some prompting, she took a bath immediately after her treatment. Expression level of 1 on the face scale. Basic treatment.

8th treatment (7/31): The patient was tired from going to the hospital the previous day, and seemed slightly out of sorts. However, she said her body felt lighter, and she felt good. Expression level of 1 on the face scale after treatment. Basic treatment.

13th treatment (8/28): She said her surgery site hurt, and she found it difficult to sleep at night. Her smile seemed to be stiff, perhaps due to lack of sleep. She had been refusing to bathe, but with some prompting, she took a bath immediately after the treatment. Expression level of 3 on the face scale. Basic treatment.

17th treatment (9/25): The patient had caught a cold, and coughed up blood in her sputum. She had no fever or chills, but her throat and back of her nose were swollen. She was administered a cold medicine. Her smile seemed stiff, perhaps due to her cold. Expression level of 3 on the face scale. Basic treatment.

- 18th treatment (10/2): The patient's cold had abated. She seemed more energized, and the stiffness had disappeared from her smile. Expression level of 2 on the face scale. Basic treatment.
- 19th treatment (10/9): The patient said her body felt heavy, and she felt strong pain in her surgical site. Her smile was stiff, perhaps due to the pain. She did not refuse to bathe, but she asked if she should. She took a bath when prompted, and repeated this thereafter. Expression level of 4 on the face scale. Basic treatment.
- 20th treatment (10/16): The patient said her cold was completely gone, and she was beginning to feel much better. The pain in her surgical site had improved, and a smile returned to her face. Expression level of 1 on the face scale. Basic treatment.
- 22nd treatment (10/30): The patient began to talk a lot, and said she felt much better. She said her body felt lighter after the treatment, and she felt good. She came to her treatment with a full smile on her face. Expression level of 1 on the face scale. Basic treatment.
- 25th treatment (11/20): The patient experienced a reddening of her feet below the ankle in the middle of the night, and woke up in pain a number of times. The symptom did not appear during the daytime, however, and she came to her treatment with a full smile on her face. Expression level of 1 on the face scale. Basic treatment + roller acupuncture of the lower limbs.
- 26th treatment (11/27): The patient was in good physical condition, and her legs had come to feel light. She began walking using a rollator beginning from this day. She came to her treatment with a full smile on her face. Expression level of 1 on the face scale. Basic treatment + roller acupuncture.

Thereafter until today, the patient has been stable, with no recurrence of psychological / behavioral disorders, and is showing good progress.

Ten nursing staff members were asked whether the patient's expression changed immediately after treatment, according to 5 levels: "Changed significantly," "Changed somewhat," "Did not change," "Worsened somewhat," and "Worsened significantly." Five responded "Changed significantly," four responded "Changed somewhat," and one responded "Did not change."

When combining "Changed significantly" and "Changed somewhat," 90% of respondents said the patient's expression "changed." No respondents gave "Worsened somewhat" or "Worsened significantly" as their answer.

The respondents were also asked to rate the changes in nursing case burden immediately after the treatment, according to the 5 levels of "Decreased significantly," "Decreased somewhat," "No change," "Increased somewhat," and "Increased significantly." Two responded "Decreased significantly," five responded "Decreased somewhat," and three responded "No change."

When combining "Decreased significantly" and "Decreased somewhat," 70% of respondents said nursing care burden "decreased." No respondents gave "Increased somewhat" or "Increased significantly" as their answer.

Another question asked the respondents to rate how the patient's expression changed from before the treatment compared to today, also according to 5 levels. Four responded "Changed significantly," five responded "Changed somewhat," and one responded "No change."

When combining "Changed significantly" and "Changed somewhat," 90% of respondents said the patient's expression "changed." No respondents said her expression "Worsened somewhat" or "Worsened significantly."

Yet another question asked the respondents to rate how their nursing care burden changed from before the treatment compared to today, similarly according to 5 levels. One responded "Decreased

significantly,” six responded “Decreased somewhat,” and three responded “No change.”

When combining “Decreased significantly” and “Decreased somewhat,” 70% of respondents said nursing care burden “decreased.” No respondents said their burden “Increased somewhat” or “Increased significantly.”

3. Observation

The patient’s expression level of 8 on the face scale before the first treatment improved to level 3 immediately after the treatment. In a question that was put to the nursing staff, 90% responded that the patient’s expression “changed” immediately after treatment. The patient constantly smiled thereafter, and the unhappy feelings she had before treatment disappeared. Her anxiety and restlessness abated, and her sense of depression also disappeared. In a question that was put to the nursing staff, 70% responded that their nursing burden “decreased” immediately after treatment. The patient’s desire to go home and her refusal to bathe also dissipated, and she began to not only look forward to the treatment, but to also voice her feeling that she had been looking forward to it. The nursing staff became able to eliminate the time and effort to cajole the patient to doing something she refused to do, and their nursing burden decreased.

The patient had never experienced acupuncture treatment, and had a sense of fear of being pricked by a needle, but her first treatment dissipated her worries, and the treatment was able to be continued. In a question put to the nursing staff, 90% responded that the patient’s expression “changed” when comparing her expression before the treatment and today, and 70% responded that their nursing burden “decreased” when comparing the burden before treatment and today. The patient’s expression improved significantly and the staff’s nursing burden decreased immediately after the treatment, and these aspects remained stable thereafter,

indicating the continuous effect of the treatment. By continuing the treatment, the patient’s anxiety, restlessness, and depression coming from these feelings disappeared, she became more motivated, she stopped refusing nursing care, and became able to communicate better with the nursing staff and other residents. These improvements also helped decreased the staff’s nursing burden.

Kurosawa et al.¹⁾ reports that non-invasive mechanical stimulation on the skin promotes dopamine secretion from the nucleus accumbens. Dopamine is said to be a “pleasure” hormone. When considering the fact that the patient’s expression rapidly loosened after the treatment and she began to smile more often, that her anxiety, restlessness and depression disappeared and remained gone, that she constantly noted that her body felt lighter, and that she remembered her previous treatment and said she had been looking forward to the next treatment whenever she came in for her treatment, the writer thinks a dopamine activation system was involved as a reward system.

Depending on the severity of dementia, rubbing acupuncture treatment may have an even greater effect by applying it not only once but two to three times a week.

4. Conclusion

This case indicates that rubbing acupuncture, by its method of rubbing the skin without harm to the body in any way, may be safely applied within around seven minutes, causes no fear of being pricked by a needle, and has hardly no side effects. It can be applied with the patient sitting or lying down, and is thus a simple procedure that anyone can receive, including people who are confined to the bed or who cannot maintain a sitting position. The side effects of taking multiple drugs have become a problem today, but rubbing acupuncture causes hardly any side effects, as stimulation is applied to the skin by rubbing. Its immediate effect is strong,

its effect lasts, and the amount of drugs taken can be reduced.

The rubbing acupuncture method is thought to be a procedure that is capable of improving such psychological symptoms as anxiety, restlessness, depression and low motivation, as well as of delivering the joy of living, realizing the lifestyle that is actively desired by the patient, and increasing QOL.

Reference

- 1 Maruyama K, Shimoju R, Ohkubo M, Maruyama H, Kurosawa M. Tactile skin stimulation increases dopamine release in the nucleus accumbens in rats. *J Physiol Sci.* 2012; 62(3): 259-266.