TREATMENT OF DISEASE WITHOUT THE USE OF DRUGS III. SELF-TREATMENT OF MIGRAINE BY THOUGHT CONTROL

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SYNOPSIS

29 migraine sufferers were taught a technique of thought control to ameliorate their headache. The technique involves a form of mental exercise which leads to an increase in palmar skin resistance (GSR) and a calm and restful mind. Shortly after participating all improved by having lesser number of migrainous days, shorter duration and lesser in intensity of the headache. In the 1st month of participation 18 of them showed a 60 percent reduction of their migrainous days and 3 were free of their headache. By the end of the 6th month 28 of the sufferers were migraine-free and the remaining one experience a 80 percent reduction of her migrainous days.

INTRODUCTION

In our recent investigation on the relationship between thought control and glavanic skin resistance (GSR), we showed that GSR could be voluntarily increased by a process of thought control (Sim, 1979). The subjects in our experiment were able to produce GSR increases of over 600 K ohms in which a calm and restful mind issues. The following report described an experiment on the self-treatment of migraine using the technique of thought control to increase GSR.

METHOD

Subjects

Migraine sufferers were either referred to us by practising physicians or were volunteers in response to our advertisement. All sufferers experienced periodic aching and throbbing pain unilaterally or bilaterally or a mixture of both. Their pain lasted for hours becoming, at most times, a steady ache. All experienced one or more of the following symptoms during an attack, nausea, vomiting, spreading of pain to neck and face, swelling of nasal mucosae and eyes, and edematous and tender blood vessels and tissues at the area of pain. Of the 31 sufferers who participated in our project only two were males. Their ages range from 23 to 48 years. 8 had had migraine for 4 years or longer, and the other 23 had suffered the headache for from 9 to 37 months. The frequency of their migrainous day ranged from 6 to 11 per month. All the sufferers had consulted two or more different physicians and had been give drugs to relief their headache. Two had been hospitalised previously for the continuous and disabling pain. None of volunteers were on prophylatic treatment and the drugs

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given included asprin, paracetamol, mefenamic acid, lorazepan, combination of ergotamine and caffeine (cafergot), combination of belladonna alkaloid, ergotamine and pehnobarbitone (bellergal), combination of amindopyrine, caffeine and allylbarbitone (optalidon).

Procedure

Participants were made to sit squarely with spine and head erect in a dimly lit room. They were asked to closed their eyes, relax and try to free their mind of discursive thoughts. Skin resistance (GSR) were recorded as described previously (Sim, 1979) for 15 minutes. These recordings served as controls. The body visualisation exercise described previously (Sim, 1979) was then taught to the subjects and their skin resistances were again recorded during the 15 minutes attempt. Following this instruction subjects devoted 15 minutes to practising this visualisation exercise. Headache project data collection sheets similar to that devised by Sargent and coworkers (1973) were given to the subjects. They were instructed in the recording of the exercise routine, the number, intensity and duration of migraine attacks and the medicines taken. Participants had weekly appointments for the first 3 months to measure their GSRs during the visualisation exercise.

At the second visit the following breathing exercise (diaphragmic breathing) was taught to the subjects. *Inhale slowly and steadily descending the diaphragm to increase the chest cavity. As the diaphragm descends it presses upon the abdominal organs forcing out the abdomen. Exhale slowly retracting the abdomen and steadily forcing it inwards.* The duration of inhalation and exhalation was equal and a count of 4 was recommended. A 15 minutes practice of the breathing exercise was also included in the routine and subjects were asked to breath diaphragmically whenever they were conscious of their breathing. At the third visit subjects were introduced to an additional visualisation exercise of space visualisation as described previously (Sim, 1979). Following five rounds of body visualisation, subjects were asked to be aware of the silent void in front of their foreheads and to maintain this awareness at the exclusion of discursive thoughts. Subjects practised daily this exercise for 20 minutes in addition to the 15 minutes breathing exercise. The duration of the visualisation exercise after the fourth visit was increased to 30 minutes.

Of the 31 participants, 2 left our program for religious reasons, one at the third week and the other after the fifth week. No attempt was made to persuade them to continue as the mental exercise had no religious content and unlike TM no mantra was involved. One of them initially complied with our request to keep a record of his migrainous days for six months but did so for only 4 months.

RESULTS

After three weeks of daily practice subjects were able to produce an increase in GSR of two to three hundred thousands ohms. There was also close correlation between the subjective feeling of performing well in restricting discursive thoughts during the mental exercise and the increase in GSR. With subjects who had headache during their appointments it was also noted that the ability to keep discursive thoughts at bay during the exercise was reflected in the cessation of the pain and an increase in their GSRs. In the 3rd month of GSR recording, GSR increases of the subjects ranged between 400 to 600 K ohms.

Diaphragmic breathing was introduced during the second visit because it was observed in our other study (unpublished) that some subjects complained of incoordinate and difficult breathing while performing the visualisation exercises. When this breathing was introduced they were able to overcome their breathing difficulty.

The data collected from the headache project data collection sheets were presented as the percentage reduction of migrainous day per month following the self-treatment (see Table 1). The number of migrainous days of each subject in the month prior to participation were taken from the diaries of 21 subjects. 8 subjects who did

TABLE 1

SIX MONTHS EVALUATION OF SELF-TREATMENT OF MIGRAINE OF 29 SUFFERERS

Percentage reduction of migrainous days per month*	Number of sufferers responding to the self-treatment after the following months:					
	One	Two	Three	Four	Five	Six
0 — 20	0	0	1+	1+	0	0
20 — 40	3	2+	0	0	0	0
40 — 60	9+	4	0	0	0	0
60 — 80	10	6	2	0	0	0
Above 80	5	12	13	13	3	1
100	3	9	14	16	26	28

+The number includes one participant who left the projects after the fifth week.

$$\frac{\text{*No. of migrainous days per month following participation}}{\text{*No. of migrainous days in the month prior to participation}} \times 100$$

not keep diaries estimated the values. Each of these values served as control of the particular subject. Table 1 shows that all the subjects responded favourably to the self-treatment. In term of migrainous days, 27 of the subjects had a reduction of above 40 percent in the first month of the program. 14 had had no migraine episodes during 4 of the 6 months of evaluation. By the end of the sixth month all subjects except one were migraine-free. Besides the reduction of migrainous days all subjects reported a reduction in the duration and intensity of their headache. There was also a corresponding drop in the use of drugs as subjects' conditions improved. In the first month 8 of the 25 subjects who were not completely free of their migraine managed to relieve their headache pain by performing the visualisation exercises without resorting to drug medication. Similarly, 21 of the 24 subjects in the second month relieved themselves of the pain by the visualisation exercises. In the third month only 3 subjects used drugs to relieve their pain. Subjects in the remaining evaluation months utilised only the visualisation exercises to relieve themselves of the mild headache they occasionally experienced.

It was also reported by 13 of the female subjects that as their conditions improved the migraine were mostly confined to their premenstruation period. By the third month 84 percent of their migraine occured within this period with only 3 having them during or following the bleeding. Migraine could, however, be triggered by stressful and emotional experiences at other periods of the month. The susceptibility of the patients to migraine during the pre-menstruation period could be due to the marked drop of estrogen level and the release of vasocontrictor substances from uterine tissue. Since both these factors are believed to cause the vasospasm of endometrial blood vessels leading to menstruation bleeding (Guyton, 1976) it is also possible that the cranial vasculature could be similarly affected resulting in the high incidence of migraine.

DISCUSSION

Our pilot study has shown that migraine can be effectively controlled by regular practice of thought control. The subject works to attain a 'thought-free' mind by constantly restricting his or her thoughts. The physiological responses that occur during and following such practices probably restore the mal regulation of cranial vasculature bringing relief to the subject when performed during an attack. Regular practice probably maintains this physiological state and minimises further attacks to a considerable degree. We believe that there is a similarity between the autogenic training of Schultz and Luthe (1959, 1969) which was utilised by Dr. Green and his coworkers (1973) in treating migraine and our technique in bringing about physiological responses favourable to ameliorating migraine. The positive affirmation phrases (e.g. My neck, my jaw and my forehead feel relaxed; they feel confortable and smooth) used by sufferers in autogenic training is not unlike our body visualisation. However, we feel that imagining a feeling which is not present requires more mental effort and that feeling is often associated with emotion which we, in our project, try to minimise.

Subjects had noticed that during the six months of learning to restrict their discursive thoughts they had also learn to be more patient, tolerant and less materialistic. They reported a more purposeful life since participating in our project. Perhaps in changing their life style to minimise migraine attacks, subjects had realised some inner aspects of life which other current forms of treatment do not impart.

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