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ACUPUNCTURE AND TRADITIONAL
MEDICINE IN THE TREATMENT
OF RADIATION REACTION

-COMMUNIST CHINA-

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ACUPUNCTURE AND TRADITIONAL
MEDICINE IN THE TREATMENT
OF RADIATION REACTION

[This is a full translation of an article written by Ku Hsien-chih, Ch'in Feng-ko, and Chang Li-chun appearing in Chung-hua Fang-she-hsueh Tsa-chih (Chinese Journal of Radiology), Vol VII, No 5, 1959, pages 379-383.]

During the clinical treatment of malignant tumors by radiation, there is frequently a localized or generalized reaction. This is especially true when the tumors are deeply rooted. Such reactions from radiation treatment are not only extremely painful for the patient but also lower his resistance.

Thus, these reactions are most harmful to the patient's health and general well-being, thereby decreasing the effectiveness of the treatment. Sometimes the treatment even has to be abandoned. Much research has already been done on this very important problem--both nationally and internationally--but no satisfactory method of treatment has as yet been found.

A summary has been compiled on the results of using acupuncture to treat radiation reaction. Of 292 patients treated, over 50 percent were completely cured, and the treatment was more or less effective in over 90 percent. Results of this summary were compiled from research work done by KUO Ching-hua and others and published in the Chinese Journal of Radiology, No 6, 1958, by KU Hsien-chih and others in an as yet unpublished report, by KAO Ju-kuei in his unpublished article, and from the unpublished report of the Shanghai Tumor Hospital and the Canton People's Hospital.

CHANG Li-chun and others in their unpublished report have summarized the results of treating 34 cases of skin radiation reaction by traditional medicine. So far this method of treatment has far surpassed that of any other in its effectiveness. The following serves as an introduction to this method.

1. Acupuncture in the Treatment of Generalized Radiation Reaction

(1) KU and others analyzed the results of their treatment in accordance with the symptoms displayed by the patients. The five main symptoms are categorically listed as anorexia (poor appetite), dizziness and headache, pernicious vomiting, abdominal pain and diarrhea. Low white count, dryness in the mouth, sore throat and rectal inflammation will be separately analyzed.

Usually, patients have one or more, or even all of the first five symptoms. Each of these symptoms are listed as 1,2, etc. in the sequence listed above. Table 1 presents an idea of the general situation.

Table 1

The effectiveness of of radio therapy according to symptoms in an analysis of 103 cases.

Sympton List	No of Cases	Cured	Improved	No Effect	Condition Worsened
1	32	18(56%)	9(28%)	4(13%)	1(3%)
2	35	44(40%)	17(49%)	4(11%)	0
3	19	9(47%)	10(53%)	0	0
4	15	7(47%)	7(47%)	1(6%)	0
5	2	1	1	0	0
Total	103	48(46.6%)	45(43.7%)	9(8.7%)	1(1%)

Treatment standards are as follows: all cured cases are completely asymptomatic; improved cases consist of those in which the symptoms became less worked or those in which half of the symptoms have declined or are cases considered to be cured; otherwise, such cases will be considered to be without effect, for when the conditions have worsened, the symptoms have increased. The Table is self-explanatory.

From Table 1 it can be seen that the ratio of those cured is 46.6 percent; of those who have improved it is 43.7 percent, and in cases which have worsened it is 9.7 percent. Therefore, this method of treatment is effective in 90.3 percent of the cases.

If the seven critically ill patients in the last stages of their malignancy were not included in this tabulation, then only two patients failed to benefit from the treatment, and the effectiveness of this treatment would rise to 97.7 percent. This ratio and the published results of 55 cases by KUO are quite close, for in the published report of the 55 cases, 58.2 percent were considered cured, 22 percent showed marked improvement and in 14.5 percent a slight improvement was seen. Therefore, the effectiveness of this type of treatment is 94.7 percent.

On the other hand, results from radiotherapy indicate that neither improvement nor cure of the symptoms bears any relationship to the number of symptoms manifested in a patient--while that patient is under acupuncture treatment. Although only a few patients retain all five symptoms, the number is too small to permit clarification of the situation.

From the first four symptoms listed one still cannot see any relationship between the results of radiotherapy and the number of symptoms manifested in the patients in each of these groups. There is some difference between the number of cured and the number of improved cases, but little significance is attached to this. Therefore, in order to clarify the relationship between acupuncture therapy and the duration of the sickness, the following analysis was made.

(2) A total of 72 cases of carcinoma of the cervix were selected from the above-mentioned 103 cases and were analyzed according to the stage of their disease and the symptoms. Results of this analysis are shown in Table 2.

Table 2

Analysis of radiotherapy in 72 cases according to the stage of the disease and the number of symptoms manifested.

List of Symptoms	Cured		Improved	
	Early stage (I, II stage)	Late Stage (III, IV stage)	Early Stage	Late Stage
1	7	1	7	1

Table continued--

2	6	0	8	3
3	5	1	5	4
4	9	1	4	3
5	1	0	0	2
Total	28	3	24	14

	Ineffective		Worsened	
	Early Stage	Late Stage	Early Stage	Late Stage
0		1	0	0
0		0	0	0
0		1	0	0
0		2	0	0
0		0	0	0
Total	0	4	0	0

There were 52 cases of early malignancy, and the ratio of those who were cured was $28/52=54$ percent; the ratio of those who had improved was $24/52=46$ percent, and there were no cases recorded in which treatment was ineffective.

There were 20 cases in the last stages of malignancy, and the ratio of those who were cured was $3/20=15$ percent; the ratio of those who had improved was $13/20=65$ percent, and in those cases where the treatment had been ineffective, the ratio was $4/20=20$ percent.

It can be seen from the above figures, that when treatment was started during the early stages of cervical

malignancy, the percentage of cure was 54 percent, and of improved--46 percent; therefore, the effectiveness of the treatment for early cervical malignancy was 100 percent.

The ratio of cures in the later stages of cervical malignancy was only 15 percent; the effectiveness of the treatment was therefore only 80 percent, for it was ineffective in 20 percent of these cases.

Although the number of cases in these two groups was not the same, because there were fewer cases in the later stages of malignancy, yet there was a distinct difference in the results; we can conclude that the treatment was not as effective in cases in later stages of malignancy.

KU and other research workers have acknowledged that there are two reasons why the treatment of cases in the later stages of malignancy was not as effective as the treatment of cases in the earlier stages of malignancy. First: in order to get the proper results from acupuncture, the effect from acupuncture can only be manifested after it has passed through the body. Second, the abdominal pain present during the later stages of malignancy is due to the pressure exerted by the tumor, and the puncture site chosen was not for treating the tumor but for relieving pain; therefore, the acupuncture was ineffectual. Of these two main reasons why acupuncture was not effective, the former was the chief reason.

Table 3

An analysis of therapeutic effectiveness as manifested in each symptom.

Symptoms	Cured	Improved	No Effect
1. Pernicious vomiting	32 (32/47=68%)	13 (13/47=30%)	1+ (1/47=2%)
2. Anorexia	33 (33/68=48.5%)	27 (27/68=39.7%)	8* (8/68=11.8%)
3. Diarrhea	16 (16/22=73%)	5 (5/22=23%)	1 (1/22=4%)
4. Abdominal pain	13 (13/24=54%)	8 (8/24=33%)	3++ (3/24=13%)
5. Dizziness, headaches	17 (17/26=65%)	8 (8/26=31%)	1** (1/26=4%)
6. Dryness of mouth, sore throat	1 (1/8=12.5%)	3 (3/8=37.5%)	4 (4/8=50%)
7. Inflammation of rectum, due to radio-therapy	5 (5/12=40%)	7 (7/12=60%)	0
8. Low white count	12 (12/29=41%)	15 (15/29=52%)	1 (1/29=3%)
Total	120/236=54.6%	85/236=36%	21/236=8.9%

Table continued--

Worse	Number of Cases	Percentage of Effectiveness
0	47	98
0	68	88.2
0	22	96
0	24	87
0	26	96
0	8	50
0	12	100
1 (1/29=3%)	29	93
Total 1/236=0.5%	236	90.6

+ mentally disturbed, only punctured once

* seven patients who could not eat even when they felt like eating, due to sore throat and dryness of the mouth

++ later stage in abdominal tumors

** changes in the skull

(3) The effectiveness of acupuncture can be determined by the decline of symptoms manifested in the patients. See Table 3.

If special cases were excluded from this estimate, then the percentage of cure would be $129/234=95.2$; in improved cases it would be $85/234=37.6$; and the total number of cases in which treatment proved effectual would be

214/234=95.2 percent. The treatment is 100 percent effective for cases with pernicious vomiting and 98 percent in anorexia.

The results of treating pernicious vomiting, anorexia, diarrhea, abdominal pain and dizziness or headache with acupuncture is not related to the severity of the symptoms. This is especially true in the case of pernicious vomiting, where the symptoms are comparatively more severe; after one or two punctures, however, all symptoms of vomiting would disappear completely. However, there have been other cases of pernicious vomiting in which the symptoms were not quite so severe, and in which the symptoms of vomiting could not be completely eradicated, even after one or two punctures.

Patients complaining of anorexia reacted in the same way to the treatment by acupuncture. Therefore, the different results obtained in treating the same type of disease with the same methods and the same amount of radiation may have been due to individual differences from within each patient. Thus, because of these individual differences it was impossible to raise completely the percentage of cures. Although no proof has as yet been established, the fact remains that the reasons for not effecting a complete eradication of these distressing symptoms from radiation through acupuncture was due to the unsuitable selection of the main site and complementary sites of puncture. (Chuh-sueh and P'ei-hsueh).

In treating inflammation of the rectum and low white blood count, some advance has already been made, and we feel that it is necessary to give a detailed account of the method involved. Since, in the past, nothing could have been done alleviate these conditions, we therefore hope that by mentioning these methods--though they are far from satisfactory--everyone will participate in research to find the best way to improve the technique of acupuncture.

A total of 29 cases of low white count were treated by acupuncture. In two cases the white count was reduced a long time after radiation treatment had ceased, and was only increased after acupuncture. However, since other methods were employed at the same time to treat this condition, these two cases were not included in the estimate. The rest of the 27 cases developed low white count during radiation, and among these were 24 patients who were also being treated by acupuncture. Two cases of low blood count developed, after treatment with nitrogen mustard. (In one case it developed after the combined treatment of X-rays and nitrogen mustard.)

The lowest white count was 650 and the highest white count was 3,800 before treatment by acupuncture was carried out. Twelve cases were cured (white count increased to 5,000-7,000), and nine cases were markedly improved (white count increased to 4,000-5,000, or the white count was increased by the addition of more than 2,000).

There were three cases in which the results were poor (less than a 2,000 additional increase in the number of white blood cells, a less than 4,000 white count after treatment by acupuncture). It was noted that absolutely no effective results were seen in three cases and that the patients' condition deteriorated (the white count was raised an additional 500 in two cases, but in the third patient the white count dropped to 2,300 from a count of 3,700 after being treated by acupuncture).

From the above 27 cases the following phenomena were observed: (1) In the 12 cases which were first mentioned, six continued radiation after acupuncture treatments were discontinued; of these six cases, there were three cases in which the white blood count had dropped to 3,000-4,000. Therefore, in order to maintain a high level in the white count, it is necessary to continue acupuncture. (2) In five cases the white blood count was increased after acupuncture was administered, the white count having increased from 3,000 to 6,000, so that a comparatively more detailed classification could be observed.

It was also noted that the percentage of polymorphonuclear leukocytes was increased by 15-20 percent, and that at the same time, an increase of imperfectly formed white blood cells was discovered (the nucleus having moved to the left of the cell structure instead of being in the center).

(3) The most effective site for acupuncture is the "Ta-ch'ui". Other sites which may be best used in conjunction with the "Ta-ch'ui" are the "Wai-kuan," "Yang-ling-ch'uan," "Chu-ch'ih" and "Ho-ku." In most cases, acupuncture of the "Ta-ch'ui" daily, or every other day, is not effective and causes deterioration of the patient's condition. The most effective method was to administer acupuncture at several of the "P'ei-hsueh" sites (complementary sites) every other day, and, on the alternate days, to administer the acu punctures at the "Chu-hsueh" sites.

(4) There were 23 other cases in which acupuncture was administered at the "Yang-ling-ch'uan," "Chu-ch'ih" and "Wai-kuan;" instead of an increase in the white blood count, an average decrease of 1,400 white blood cells occurred in each patient. However, in the 23 other patients,

these sites either were not selected or were used as puncture sites only occasionally; on an average, the white count of each patient decreased by about 3,000. This proves that acupuncture at "P'ei-hsueh" sites will prevent, to a lesser degree, a decrease in the white blood count.

KAO also studied the problem of selecting puncture sites. Of 20 cases where the puncture sites were located at "Tsu-san-li" and "Chu-ch'ih," the results were found to be quite satisfactory. In another report by KUO on 61 cases, the "Ta-ch'ui" was the main site or "Chu-hsueh" for all the acupuncture sites, and the results were all quite satisfactory.

Acupuncture was 100 percent effective in reducing the side-effects of radiation in 40 tumor cases at the Shanghai Tumor Hospital. The average white blood count of each patient was increased by more than 1,000, while, at the same time, other symptoms of radiation reaction were reduced. Thus, in order to achieve the best results from acupuncture, it is necessary to do further research on the selection of puncture sites, whether at the "Chu-hsueh" or at the "P'ei-hsueh" sites.

In connection with the treatment of inflammation of the rectum, 12 cases were treated by acupuncture and five cases were cured (bowel movements were reduced to once a day, and were free from pus or blood, and the "heavy, dragging sensation" in the lower abdomen disappeared); marked improvement was shown in five cases (bowel movement was reduced from 10-12 times per day to 1-2 times per day, there was cessation of bloody and purulent stools, abdominal distention was reduced but abdominal pain remained. However, sometimes small amounts of fresh blood would still be present in the stools. In two cases a slight improvement could be seen by the reduction in the intensity of the symptoms (bowel movements reduced from over 10 times a day to 5-6 times per day).

KU analyzed observations on the above cases as follows:

a. The opportune time to administer acupuncture: On an average, acupuncture had been administered 4.8 days after the onset of radiation reaction. In the average patient a slight improvement would be seen after the eighth day of acupuncture treatment. In cases where improvement is slow, an average of 9.2 days of treatment is required before any improvement is noticed. Therefore, KUO also concurs with KU's conclusion that the earlier the treatment, the better are the chances for recovery.

b. The onset of initial improvement after treatment by acupuncture and its relation to a cure: The number of times acupuncture had been administered and its relation to the onset of initial improvement can be gathered from the following observation: the earlier the treatment, the better is the cure. Therefore, the results of the analysis are as follows:

Ninety-one percent of the cases were cured and nine percent showed improvement, if there were effective results noticed after the first administration of acupuncture.

Fifty-three percent of the cases were cured and 42 percent showed improvement, but in five percent the results were not effective when the patients responded after the second administration of acupuncture.

Fifty-three percent of the cases were cured and 29 percent showed improvement, while there were no effective results in 14 percent of the cases, if the patient responded to acupuncture only after the third administration.

Ten percent of the cases were cured and 16 percent showed improvement, while 74 percent of the cases did not respond to the treatment by acupuncture, if they needed more than three administrations of acupuncture before any effective results could be noticed.

It was observed that the earlier acupuncture was administered the better were the chances of cure. This observation is in agreement with the conclusions made by KUC. But KU has also pointed out that these conclusions made on the basis of the above data may be wrong. He stated that the crux of the present problem lies in the fact that no one fully comprehends how to apply correctly the principles of acupuncture in the treatment of diseases, and that, therefore, we are not in a position to dispute its effectiveness.

The proper procedure is to study the situation carefully, and if, after the first or second administration of acupuncture, no effective results could be seen, it is then best to review carefully the various techniques in administering acupuncture, so that the correct sites for acupuncture will be selected. Therefore, no conclusions should be drawn from the above phenomena in relation to the effectiveness of the treatment and the number of times acupuncture has been administered.

2. Traditional Medicine in the Treatment of Dermatitis Resulting from Radiation Reaction.

CHANG Li-chun and others have summarized the effectiveness of treating 34 cases of dermatitis by traditional medicine. Three kinds of medicinal preparations were used

in these cases, and their mode of administration, as well as the conditions under which the treatment was carried out, is hereby introduced.

(1). Borneo Camphor and white of egg were used to treat dermatitis following radiation. Observation of this treatment is as follows: Stir and agitate a mixture of borneo camphor and egg white. Apply the mixture to the ulcerated areas of the skin 3-4 times daily. Do not cover with gauze but leave the area exposed.

Effectiveness of the treatment: 16 patients were treated by this method and observations were made on the effectiveness of the medication. As many as 13 patients in this group had watery lesions of the skin. Before treatment there were symptoms of itchiness, pain, ulcerations of the skin and extravasation of a yellowish, purulent nature. Immediately after the application of the medicine, a cool sensation was felt, and soon afterwards, pain and itchiness subsided. Two to three days after applying the medicine, oozing of the exudate stopped and scabs were formed. These scabs fell off after 3-4 days, and a new layer of epidermis could be seen. Of these 13 cases of watery ulceration of the skin, healing took place in one case of ulcerative dermatitis within three days, two cases healed within four days, two cases in five days, one case within eight days, three cases each were healed within 10-11 days and one case healed after 14 days. The average length of time required for healing was eight days. There is a quick action after application of this medicine; itchiness and pain subsides within a very short period. However, it has one bad feature--a feeling of tightness is felt in the skin; after the scab has been formed, there is great discomfort. For particulars see Table 4.

Table 4

The Treatment Of Radiation Dermatitis with
- Borneo Camphor and Egg White

<u>Number of Cases</u>	<u>Electric Pressure</u>	<u>Amount of Air (Quantity of Skin)</u>	<u>Area</u>	<u>Position</u>
9	350	2700(2510)	11x14	abdomen
3	350	2900(3818)	11x14	abdomen
1	200	5400()	20x10	Lower leg
1	200	2150(2645)	70cm ²	Neck
1	200	2900(3480)	6x14	Chest
1	200	1750(2157)	200cm ²	Neck
1	200	2550()	171cm ²	Neck
1	200	2600(3172)	91cm ²	Neck
1	200	4200(5264)	--	Chest
1	--	4000(5520)	314cm ²	Underarm
1	43	3600(2680)	31cm ²	Glans penis
<u>16</u>				

Amount Per Day	<u>Symptoms Before Treatment</u>						<u>Healing Condition</u>		
	Itch	Pain	Heat	Hair Follicle expansion	Dark Color	Ulceration	Dry	Wet	Not specified
250	2	2	2	3	3	2	1	2	1
250	3	3	3	3	3	3	-	3	-
150	1	1	-	-	-	1	-	1	-

Table continued--

200	-	-	-	-	-	1	-	-	-
150	1	1	1	1	-	1	-	1	-
200	-	-	-	-	-	1	-	1	-
150	-	-	-	-	-	1	-	1	-
150	-	-	-	-	1	-	1	-	-
200	-	-	-	-	-	1	-	1	-
200	-	-	-	-	-	1	-	-	-
300	-	-	-	-	-	1	-	1	-
	7	7	6	7	7	13	2	12	1

Number of Days to Heal

	3	4	5	8	10	11	14	Not Clear
	-	1	-	1	-	1	-	1
	-	-	1	-	1	1	-	-
	-	-	1	-	-	-	-	-
	-	-	-	-	-	-	1	-
	-	-	-	-	1	-	-	-
	-	-	-	-	-	1	-	-
	-	-	-	-	-	-	-	1
	1	-	-	-	-	-	-	-
	-	1	-	-	-	-	-	-

Table continued--

	1	-	-	-	-	-	-	-
Total	2	2	2	1	3	3	1	2

Note: "Dry" = signifies dry type of dermatitis, skin peels off after healing.

"wet" = watery ulcerations which eventual heal by forming scabs.

An average of eight days were needed for healing.

(2) Observations on the application of Oil of Egg Yolk medication on radiation dermatitis: Eight cases of dermatitis caused by radiation treatment of malignancy were treated according to traditional medicine: Oil of Egg Yolk. In a majority of the radiation dermatitis cases there were symptoms of excessive redness in the skin; swelling, pain and dark discolorations of the skin. Frank ulcerations of the skin and pronounced extravasation were evident in three cases.

Oil of Egg Yolk is a mixture of chicken egg yolk and hsiang-yu (fragrant oil). This preparation is applied to the ulcerated skin areas 3-4 times daily. The area thus treated should be exposed and should not be covered with gauze. The patient should feel immediate relief in regard to pain and itchiness. The skin remains moist and will not dry after application, as is the case after applying Borneo Camphor and Egg White preparation. A thick scab usually forms over the ulcerated area after 3-4 days of medication. Generally, it requires 7-14 days for the scab to dry up and fall off, before the skin may be considered healed.

The only objection to using this preparation is the possibility of increasing the severity of infection if the skin were already infected, and of an increase of extravasation in the ulcerated area. These results would then cancel out any effectiveness in the use of this preparation.

Frequently, therefore, some sort of antiseptic material is added to this medical preparation, so that infection of the ulcerated skin areas can be avoided. Antiseptics which can be added to this preparation are sulfanilamide powder, "Huang-lien" (a bitter plant) powder, Borneo (amphor, etc. Definite conclusions cannot be arrived as yet concerning the efficacy of this preparation, for there were not enough cases to be studied and compared.

Table 5

Using Oil of Egg Yolk in the Treatment of Radiation Dermatitis

<u>Number of Cases</u>	<u>Electric Pressure</u>	<u>Amount of Air (Quantity of Skin)</u>	<u>Area</u>	<u>Position</u>
1	350	2550(2715)	11x14	Arm and Abdomen
1	350	2600(3380)	11x14	ditto
1	350	2650(3445)	11x14	ditto
1	350	2450(3135)	11x14	ditto
2	350	2700(3510)	11x14	ditto
1	200	5600(8130)	100 Ou ²	Neck
1	200	3800(4628)	400 Ou ²	Chest
<hr/>				
8				

Table continued--

<u>Amount Per Day</u>	<u>Symptoms Before Treatment</u>						<u>Healing Con- dition</u>		
	<u>Itch</u>	<u>Pain</u>	<u>Heat</u>	<u>Hair Fol- licle expan- sion</u>	<u>Dark Dis- color- ation</u>	<u>Ulcer- ation</u>	<u>Dry</u>	<u>Wet</u>	<u>Not spe- ci- fied</u>
200	-	-	-	1	1	-	1	-	-
200	1	1	-	1	1	-	-	-	1
200	1	1	-	1	1	1	-	1	-
200	1	1	-	1	1	-	1	-	-
200	-	-	-	1	1	-	1	-	1
250	-	-	-	-	-	1	-	1	-
250	-	1	-	-	-	1	-	1	-
	3	4	-	5	5	3	3	3	2

<u>Number of Days to Heal</u>									
	3	7	14	19	No specified				
						1			
						1			
	1	-	-	-	-	1			
	-	-	1	-	-	-			
	-	-	-	1	-	-			

Table continued--

-	1	-	-	-
1	2	1	1	3

An average of eight days is required for healing.

(3) Some observations on the application of the "Four Yellow" Ointment (Ssu-huan Kao) in the treatment of 10 cases of radiation dermatitis: of these 10 cases, eight showed definite signs of redness, swelling, searing pain and dark discolored skin. There were evident tendencies towards the formation of blisters, and all eight cases had a moist type of dermatitis usually followed by ulcerations. Four cases showed definite ulceration of the skin.

Medicinal Preparation: A finely powdered mixture of Scutellari "Huang-ch'in," Rhubarb (Rheum Officinale = "Ta-huang"), Coptis Japonica "Huang-lien," Phellodendron Amurense "Huang-pai," the leaves of the Lotus and of the Coumarouna Odorata "P'ei-lan" were mixed onto a lanolin base and used as an ointment.

Mode of administration: The "Four Yellow" ointment was applied to both sides of the radiated area of eight patients, three times a day. Generally, an instant reduction in the severity of the pain and itchiness was felt by the patients. There were also five cases in which blisters did not form, and in which the skin did not deteriorate into ulcerations. The skin healed soon after the lesions dried up and scaled off. There were five cases in which ulceration and pronounced extravasation was present. After treating the ulcers with this ointment, a thin layer of scab would form on the skin. Very soon afterwards the scabs dried up and fell off. The average healing process took about 4-8 days. For details see Table 6.

Table 6

The Treatment of Ten Cases of Radiation Dermatitis with the "FOUR YELLOW"

<u>Number of Cases</u>	<u>Electric Pressure</u>	<u>Amount of Air (Quantity of Skin)</u>	<u>Area</u>	<u>Position</u>
1	350	2800(3640)	11x14	Abdomen & Arm
1	350	330(4390)	11x14	ditto
1	350	3500(9550)	11x14	ditto
1	350	3200(4160)	11x14	ditto
1	350	2600(3380)	8x12	ditto
1	350	2900(3590)	11x14	ditto
1	350	2700(3510)	11x14	ditto
1	350	3600(4608)	8x12)	ditto
1	200	1800(2482)	250	Neck
1	200	3000(4140)	260	Neck

10

Table continued--

<u>Amount</u> <u>Per</u> <u>Day</u>	<u>Symptoms Before Treatment</u>							<u>Healing Condition</u>		
	<u>Itch</u>	<u>Pain</u>	<u>Heat</u>	<u>Dry</u>	<u>Hair Fol- licle expan- sion</u>	<u>Dark Dis- Color- ation</u>	<u>Ulcer- ation</u>	<u>Dry</u>	<u>Wet</u>	<u>Not spe- ci- fied</u>
200	1	-	-	-	1	1	-	1	-	-
200	1	1	-	1	1	1	1	-	1	-
200	1	1	-	-	-	-	1	-	1	-
200	1	1	1	1	1	1	-	1	-	-
200	1	1	-	-	1	1	-	1	-	-
200	1	1	-	-	1	1	1	-	1	-
200	-	-	-	-	1	1	1	-	1	-
200	-	-	-	-	1	1	-	1	-	-
150	1	1	-	-	-	1	-	1	-	-
150	1	1	-	-	-	1	1	-	1	-
	8	7	1	2	7	9	5	5	5	-

Table continued--

	Number of Days to Heal			
	4	7	8	Not specified
1				1
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325				

pain, dark discolorations and the expansion of hair follicles. The skin condition of both patients showed definite tendencies towards blister formation.

At the start of the treatment, Borneo Camphor and Egg White Ointment was applied to the left side of the radiated areas of the two patients, and the Four Yellow Ointment to the right. Each medicinal preparation was applied once a day to the afflicted areas. Both sides of the area healed within the same length of time, and new epidermis formed as soon as the scabs fell off.

However, the side of the areas receiving Borneo Camphor and Egg White was blistered, and sensations of tightness were felt in the skin. No blister was formed on the side of the radiated area where the Four Yellow Ointment was applied, and the patients were comfortable without feeling any sensation of tightness.

Although observations were only made in respect to a few cases, it is clear from the data that the Four Yellow Ointment can check any further skin reactions if it is applied early--immediately after the termination of radiation therapy. In contrast, Borneo Camphor and Egg White preparation did not give this result. No clear-cut difference between these two traditional medications could be seen in the time required for healing. The only objection to the use of the Four Yellow Ointment was its messiness; clothes and bedding soiled very easily after application of this ointment, and those patients who had developed a only slight skin reactions from radiation therapy were unwilling to use it.

Discussion

The above is a summary of the results after acupuncture had been administered to 292 patients suffering from radiation reaction. Acupuncture is effective in over 90 percent of the cases, far surpassing any other methods selected by us. However, this method needs a great deal of improvement in the technique of administration, because most medical practitioners lack experience in applying acupuncture.

Some organizational units have already started preventive treatment to patients who are having radiation therapy, so that they will not suffer too much from the after-effects of radiation. Patients who have the

same kind of disease, have been ill for the same length of time, and have been receiving the same quantity of radiation in the same area, were divided into two groups; a control group and a group receiving acupuncture treatments. Preliminary observations have proved that preventive treatment of radiation reactions have been effective, but further research is still necessary to study the best sites for acupuncture.

The Canton's People's Hospital has, in the course of treating 24 cases of nasopharyngeal carcinoma, proceeded with the treatment of preventive radiotherapy in 10 patients. Some effective results were seen in these treatments, but they were not altogether satisfactory. At the present time two problems of importance should be faced in selecting the very best possible acupuncture sites and the reduction in the number of puncture sites:

First: At the start of the experimental treatments with acupuncture, too many puncture sites were selected and too many punctures were made, facts which greatly decreased the effectiveness of acupuncture. Although puncture sites have now been greatly reduced and carefully selected, too many punctures are still being made. It is necessary to continue research to find the most effective puncture sites.

Second: To discuss these medical treatment methods in accordance with the basic principles of traditional Chinese medicine, such treatment should be carried out on different patients with the same symptoms of the disease, and different methods of treatment should be tried on the patients when the symptoms of their disease have altered.

These two problems are not easy to solve and everyone should try to work and study harder, so that further research on the subject may help to improve these methods.

CHANG and some other research workers have submitted a report on the treatment of radiation reaction with traditional medicine, and their conclusions were:

1. The three kinds of traditional medicine, Borneo Camphor and Egg White preparation, Oil of Egg Yolk, and the Four Yellow Ointment were very effective in treating dermatitis due to radiation reaction. In general, the dermatitis would heal completely in about seven days after applying either of the medications.

2. Borneo Camphor and Egg White dries the skin, causing much pain from the resultant tightening of the skin. Oil of Egg Yolk Ointment is not too effective on

skin ulcerations which have already been infected. This is possibly due to the lack of an antiseptic quality in this medication. The only fault which can be found in the Four Yellow Ointment is its messiness, for bedding and clothing are very easily soiled.

3. In order to increase the effectiveness in treating radiation dermatitis with these medications, further improvement in their preparation is necessary. But most important of all is the correction of already known faults and increasing the antiseptic strength of these medicinal preparations to combat any infected skin conditions.

In conclusion: the fact remains that whether acupuncture is used in the treatment of systemic radiation reactions, or whether by the administration of traditional Chinese medicine in the treatment of radiation dermatitis, further research and improvement is necessary; such research should be based on the principles which control the body. Although much research work has already been done, this remains the duty of all western and traditional medicine medical workers. We believe that under the guidance of the Communist Party much more will be achieved; there will be greater results within the shortest possible time.

Table 7

Using Borneo Camphor and Egg White as a Method
in the Preventive Treatment of 23 Cases of Ra-
diation Dermatitis

<u>Number of Cases</u>	<u>Dosage of Medicine at Start of Treat- ment</u>	<u>Condition Prior to Prevention</u>				
		<u>No Symp- toms</u>	<u>Itch- iness</u>	<u>Pain</u>	<u>Hair Fol- licles Expan.</u>	<u>Dark Dis- color- ation</u>
1	100(130)	1	-	-	-	-
5	200(260)	5	-	-	-	-
2	300(399)	2	-	-	-	-
1	400(520)	1	-	-	-	-
2	500(650)	2	-	-	-	-
2	600(780)	2	-	-	-	-
2	800(1400)	2	-	-	-	-
1	1350(1435)	1	-	-	-	-
1	1450(1835)	1	-	-	-	-
2	1700(2210)	-	-	-	2	-
2	1900(2470)	-	-	-	2	-
1	2100(2700)	-	-	-	1	-
1	2550(3315)	-	-	-	1	-
<u>23</u>		<u>17</u>	<u>-</u>	<u>-</u>	<u>6</u>	<u>-</u>

Table continued--

Condition After Prevention

Skin Unchanged Improved Not Effective

1	-	-
2	-	3
-	-	2
-	-	1
-	-	2
-	-	2
-	-	2
-	-	1
-	-	1
-	-	2
-	-	2
-	-	1
-	-	1
<u>3</u>	<u>-</u>	<u>20</u>

END

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