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Treatment of drug addiction by acupuncture and electrical stimulation

By H.L. Wen*, and S.Y.C. Cheung*

A new approach to relieving the drug withdrawal syndrome and counteracting drug addiction itself has been made at the Tung Wah and Kwong Wah hospitals, Hong Kong. The use of acupuncture and electrical stimulation for the dual purpose has been successfully tried for the first time. In this article, the authors report treating 40 cases of addiction (30 opium and 10 heroin) by the new method, and the relief of withdrawal symptoms and the degree of "drug-freedom" obtained.

The treatment of drug addiction is normally approached from two different angles. One approach is mental treatment, which comprises psychiatry, psychotherapy, hypnosis, group therapy and attention to social problems. The other is physical treatment, in which drugs are used to counteract the addicting drug. A drug, such as methadone, is used to remove the withdrawal syndrome, or make the addicting drug unpleasant to take\(^4\). This is either done by inducing an adverse physical reaction or by blocking the desire to take the drug. Alternatively, a combination of both mental and physical therapy can be used.

In this paper, we wish to present another form of physical treatment to cure drug addiction, and especially to treat the withdrawal syndrome, by means of acupuncture and electrical stimulation — a form of treatment which has not been attempted before.

Acupuncture with electrical stimulation is simple, economical, and will not produce any marked side-effects when applied to the patient. The treatment yields very quick results, is very gratifying to the patient, and seems to replace the urge to take the drug. Hospitalization is also shortened. Further, the patient need not worry about the danger of getting addicted to another form of drug as in the case of drug substitution\(^3\).\(^4\).\(^5\).

MATERIAL AND METHODS

Since November 9, 1972, we have treated 40 cases of drug addiction. They were all treated by acupuncture and electrical stimulation. Thirty patients were opium addicts and the other 10, heroin addicts. Of these 40 cases, six came voluntarily for treatment. The others were from among cases admitted for other illnesses but found to have been also addicted to drugs. They were asked if they would consent to have their drug addiction treated. Where consent was obtained, the patients were given a course of acupuncture and electrical stimulation.

Of these 40 cases, 39 were male and only one female — a Westerner. She was also the youngest (17 years) patient. The oldest patient was 79.

The amount of money spent on drugs by our patients varied according to their financial status. The more money one earned the more one spent on the drug, the expenditure ranging from HK$2.00 to HK$40.00 per day. For a fixed amount of cash, the quality and quantity of the drug obtained, however, varied with the market.

The duration of addiction among our patients was from three years to 58 years. More than half the number of cases had been admitted with complaints of pulmonale. The others were admitted because of asthma, pulmonary tuberculosis, emphysema, and cor pulmonale. The others were admitted for treatment of concussion, fractured leg or skull, rheumatism, low back pain, chronic leg ulcer, atherosclerotic heart disease, tumour of the bladder, and ankylosing spondylitis. As stated earlier, six cases had voluntarily come for treatment of drug addiction.

Technique

We have modified the technique of acupuncture on two points only, making it much easier to perform and less time-consuming. The effect experienced by the patients during treatment is much more satisfying than with the acupuncture techniques in use before.

The technique now used involves needling the patient's ear on each side subcutaneously for ½ cm in the middle of the concha. The acupuncture point is the "lung" point of the ear (Fig. 1). After cleansing the ear

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with an alcohol sponge, a sterile acupuncture needle is
inserted, and the needle connected to an electrical
stimulator. The electrical stimulator is then turned to
the "on" position. The frequency of the current is gradu-
ally increased from 0 to 125 Hertz. The intensity is
increased until the patient feels the flow of the current
but without causing pain to his ear. Should the
patient complain of pain in the ear, the intensity of
the current is suitably reduced for comfort.
The length of treatment varies in each individual and
also depends on the drug or drugs that the patient has
been addicted to. Some need more stimulation and
some less. On an average, we stimulate the patient for
half an hour. In the first few days of treatment, we give
the patient two or three stimulations per day for two
to three days, followed by one stimulation per day for
the next four to five days. If by this time the patient
has no more withdrawal symptoms he can be treated
further as an out-patient, if and when he feels the urge
for the drug and therefore needs treatment.

With our patients, uniform results were obtained
usually 10 to 15 minutes after stimulation was started.
At this point of time, the patient confirmed that the
eyes, nose and mouth were dry, and the aching, shiv-
ering and abdominal pain were gradually disappearing.
Breathing became more regular and the patient felt
warm and relaxed.

RESULT

Of the 40 cases (Table 1), 39 were discharged and
are free of drug addiction. (One was transferred to
another hospital for surgery of tumour of the bladder.)
These patients have gained weight and said that they
have since had no urge for the drug. Twenty-two of
these cases had their urine sent for investigation, to see
if it was positive for the drugs. The report showed one
doubtful case (No. 12), and one positive case (No. 24).

Fig. 1. The site where the needle should be inserted in the
concha of the ear.

The rest were negative for the drug the patient was
addicted to before. The urine was tested by the Society
for the Aid and Rehabilitation of Drug Addicts
(S.A.R.D.A.). The 'doubtful' result related to a case of
conclusion, who has been put on Luminal for post-
convulsive syndrome. The one positive case was suf-
f ering from tumour of the bladder, which necessitated
injections of narcotic to stop his pain. The 20 cases
which showed negative urine tests are free of the drug,
and so far have had no urge for it either. The first 18
cases had no urine test done, because, to begin with,
we were interested in assessing clinically if our treat-
ment could abolish the withdrawal syndrome and the
urge for the drug. When we found that it could, we
started urine tests in later patients.

Up to the present, eight cases have come back
to have one or two repetitions of the treatment.
Two cases (Nos. 13 and 32) came back at one time
or the other, the one because of low back pain
and the other because of pain in the right shoulder
joint (frozen shoulder). They found that acupuncture
and electrical stimulation gave them relief from their
aching pain. The other six cases received the stimu-
lation because they felt the urge for the drug and the
withdrawal syndrome renewing. Each of them was
given the treatment as an out-patient, and so far they
have had no recurrence of symptoms.

It was found that heroin addicts were the harder to
deal with. They need to be given the acupuncture and
electrical stimulation as soon as they experience the
withdrawal syndrome. We found these patients very
impulsive and demanding. Three voluntary cases left
the hospital before we could do anything for them, and
they are not included in this report.

A general well-being is described by all patients
undergoing treatment. They feel less drowsy, and much
more interested in their surroundings than before, and
they quickly gain an interest in conversation and read-
ing. All report better appetite and easier bowel func-
tion. It is common to find the patients get up and
engage in drinking tea or coffee, and in eating a lot of
cakes, bread and noodles soon after the stimula-
tion is over. Often during the stimulation, the pa-
tients ask to go to the toilet to urinate, which suggests
that this treatment may have a diuretic effect. All these
activities are in contrast to the patients' condition before
the stimulation sessions, when they were invariably
withdrawn, and preferred to sleep fully dressed and
covered from head to foot in bed. They then disliked
food; some moaned with pain in the back or the ab-
domen, while others had wheezing and coughing as well
as the usual symptoms of the withdrawal syndrome.
Their main interest during that time was to know
when the next stimulation would be given.

DISCUSSION

During anaesthesia by acupuncture, we noted that
among patients who were addicted to opium, those who
had the withdrawal symptoms coming on obtained
immediate relief from the symptoms. Not only were
these patients relieved of the symptoms but they de-
declared also that they felt good, were alert and relaxed.
They further said that while under stimulation, their
craving for the drug had ceased. Indeed, these favour-
able reactions had encouraged us in our investigation of
the efficacy of acupuncture and electrical stimulation
TABLE 1. Opium and heroin addiction: material and result.

<table>
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<th>No.</th>
<th>Age in yrs.</th>
<th>Sex</th>
<th>Type of drug</th>
<th>Amount of drug (HK$/day)</th>
<th>Years of addiction</th>
<th>Diagnosis on admission</th>
<th>Response to treatment</th>
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*Transferred to another hospital.

as a treatment for the relief of the withdrawal syndrome of addiction, and, eventually, for the cure of drug addiction itself.

We had noted that the feeling of lacrimation, running nose, aching bones, wheezing, cramps in the stomach, cold feeling and irritability usually disappeared after 10 to 15 minutes of stimulation. The patient would complain of thirst even while the stimulation was being given.

We stopped the procedure, when the patient him-
self was fully satisfied. The patient would describe his feeling of satisfaction then in terms of the effect on him of the drug, opium or heroin, he was addicted to ("... as if I had a full dose of the drug," he would say); most of them would also try to equate the satisfaction derived from the stimulation with the euphoria a quantity of drug used to give them (e.g., HK$8.00 worth of opium, or HK$10.00 worth of heroin). The time to stop stimulation usually worked out at about 30 minutes, but sometimes some patients needed up to 45 minutes.

However, when patients first came in for treatment they were very apprehensive and suspicious of this method of treatment. We had to assure them that the treatment only involved needling of the ears, and that the needling would produce only slight discomfort. This suspicion was no longer evident at the next session; for the patients' fears were now gone and they were eager to re-experience the release from the agony of the withdrawal syndrome such as they had experienced at the first session. With new patients we found that the best course was to wait for the start of the treatment until they were experiencing the withdrawal syndrome; and then they could feel the symptoms gradually disappear, one after the other.

In man, about 60 days are needed to restore the normal central nervous function after withdrawal\(^1\). Therefore, one cannot say that the patient is "drug free" until this interval has passed. One has to advise the patient to get back for further acupuncture and electrical stimulation should he have the withdrawal syndrome during this period.

It was observed that when patients had the withdrawal syndrome, they often sat up in bed with their lower extremities flexed at the hip and knee joints, and would also rest both upper extremities on the knee (somewhat similar to the posture assumed by the monkey when it sat on the ground). When the patients lay down, they still preferred this posture, except that they lay on either side and not on the back. Asked why they preferred this posture, they would reply that it relieved them of their aching pain in the back and extremities.

Two patients had diarrhoea following the first day of treatment (Nos. 5 and 16), which is part of the withdrawal syndrome. The diarrhoea was stopped with acupuncture and electrical stimulation.

Five cases of asthma with chronic bronchitis were relieved of their symptoms at the end of the treatment. The others with pulmonary diseases were also helped symptomatically by this treatment.

REFERENCES

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