

# Acupuncture For Everything Else

The Chinese are treating many conditions with acupuncture and attempting to provide evidence that it works, but they have yet to pique the interest of Western researchers

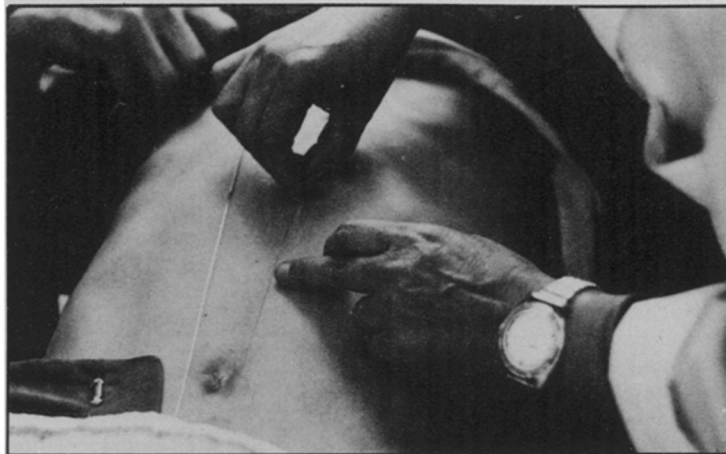
BY ROBERT J. TROTTER

Analgesia is only one aspect of acupuncture. Various Chinese medical texts claim that nearly 300 kinds of diseases can be treated effectively with acupuncture. Among them are: malaria, hypertension, acute appendicitis, acute perforation of gastric ulcer, ulcer, bronchitis, asthma, arthritis, benign thyroid adenoma, syringomyelia, paraplegia, myopia, optic fundus bleeding and optic atrophy.

The Institute of Acupuncture and Moxibustion in Beijing, an affiliate of the Academy of Traditional Chinese Medicine, is one of the places where research on the effects and mechanisms of acupuncture with regard to several of these diseases is being carried out. "We are doing theoretical research in the light of modern medicine," says Wang Xuetai, head of the institute. But this is not the way it has always been. U.S. researchers who visited China in the early 1970s reported that much of what the Chinese called research was not research as we know it but rather simple, unstructured clinical trial and error. Today, from what we could see, the Chinese seem to be seriously interested in backing up what they are doing with hard research data. During our visit to the acupuncture institute we saw clinical treatment of and experimental data relating to coronary heart disease and gastrop-tosis (an abnormal downward displacement of the stomach).

"Chest pain with symptoms of deathlike pallor, dyspnea and difficult breathing signifies heart disease with derangement of liver. [Acupuncture] Points chosen should be Xingjian and Taichong. . . . Pain in chest, pain in the heart aggravated in exertion with complexion unaltered means pulmonary heart disease. Points taken should be Yuji, Taiyuan." The Chinese cite these passages from *The Cannon of Medicine*, a Chinese medical classic published more than 2,400 years ago, as evidence that acupuncture therapy for coronary heart disease and angina pectoris has a time-honored history. In recent years the Chinese have been conducting research in the hope of demonstrating the efficacy of such treatment.

One major study made systematic observations of 631 angina pectoris patients who had been treated with acupuncture.



*Patient with cardiovascular disease and hypertension (above) gets acupuncture needles in legs. The long needle inserted down patient's stomach is treatment for gastrop-tosis.*

Included in the study were 436 males and 195 females, mostly laborers between 40 and 60 years of age. These patients had complained of heart pain for two years or more, and complications included hypertension, chronic myocardial infarction, bronchitis, cerebral accidents and diabetes. All had failed to respond to either traditional Chinese herbal medicine or to modern Western medicine. The Chinese report that acupuncture treatments were successful in relieving symptoms in nearly 70 percent of the cases.

Treatment consists of inserting needles at various points and either manipulating them or applying an electric current to them for 20 minutes. This therapy is applied every day or two in an out-patient clinic, and 10 sittings constitute one course of treatment. The interval between courses of treatment is 3 to 5 days, and observations are made during three courses of treatment. The Chinese report that effective results usually appear during the first or second course of treatment. In 219 of 506 patients suffering from angina pectoris, symptoms were markedly improved after acupuncture treatment. Another 242 cases showed moderate im-

provement, and 45 (8.9 percent) showed no improvement.

More than 85 percent of the patients who had used glycerol nitrate prior to acupuncture treatment either stopped or reduced use of the drug after treatment. More than 70 percent of the patients who had been disabled by their condition were able to go back to full- or part-time work.

Electrocardiogram readings are made before, during and after the treatment regimen. Of 631 cases, 583 showed abnormal ECG readings prior to acupuncture treatment. After treatment 146 showed marked improvement, 244 moderate improvement, 181 no improvement and 12 were worse. The total effective rate, as shown by ECG measures, is 66.9 percent, but follow-up studies indicate that improvement in ECG usually appears much later than do improvements in symptoms.

In addition to relief of heart pain, the Chinese claim that acupuncture therapy has beneficial effects on associated symptoms: relief from suppressive feelings in the chest in 88 percent of the cases; from heart palpitations, 80 percent; from dyspnea (difficulty breathing) 86 percent. Officials at the acupuncture institute say, "We

consider that the improvement of these symptoms is due to acupuncture, which promotes the function of the heart."

Does acupuncture actually improve the functioning of the heart? And if so, how? The Chinese are attempting to answer these questions, and dogs are the subjects in several research programs being carried out at the Institute of Acupuncture and Moxibustion. Yang Youme and Wang Pingping reported the results of one study at a symposium in Beijing this June.

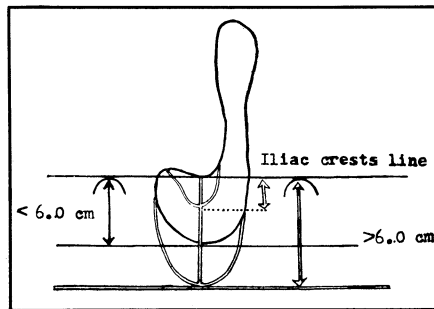
Assuming that acute myocardial infarction is involved in coronary heart disease and angina pectoris, infarctions were experimentally produced in 20 healthy dogs. The third branch of the left anterior descending coronary artery was ligated, or tied off, at its root to produce the infarct (death of tissue due to lack of oxygen). In the control group (9 animals), the hearts were removed 3.5 hours after ligation, and histological preparations were made. The animals in the experimental group received five treatments of electroacupuncture beginning 15 minutes after ligation. (Needles were inserted at points in the front paws of the dogs.) Each treatment lasted 10 minutes, with intervals of 30 minutes between treatments, until 3.5 hours after ligation. The hearts of these animals were then removed and prepared as the others had been for histological examination.

The percentage of infarcted area in the hearts of the control animals was 18.09, compared with 8.40 in the animals treated with acupuncture. The percentage of infarcted mass in the total weight of the ventriculum was 8.35 in the controls and 3.60 in the experimentals. The percentage of infarcted mass in the left ventriculum was 11.33 in controls and 4.62 in experimentals. Staining methods allowed for measurement of the extent of myocardial necrosis (localized death of tissue): 71.43 percent in controls, 25.00 percent in experimentals. The researchers say these experiments show that acupuncture can "reduce the range of infarction and the extent of myocardial necrosis in experimental myocardial infarction."

Because oxygen deficiency brings about irreversible necrosis of myocardium, the researchers suggest that the effects of acupuncture are probably due to "regulating the coronary blood flow, thus increasing the delivery of oxygen and improving the condition of ischemic and marginal zones of myocardial infarction." And because it is known that hydrocortisone can significantly reduce the extent of myocardial infarction, the Chinese further suggest that "the effects of acupuncture may also be due to the activation of adrenocortical function and enhancement of anaerobic metabolism of myocardium."

In a related study Liu Ruiting, Li Lianda and Meng Jeibing used epicardial ECG readings to investigate the effects of acupuncture on experimentally produced myocardial injury in dogs. Studies were

carried out with 28 dogs (15 experimental, 13 control). Each animal was anesthetized and maintained on a respirator while its heart was exposed. Multipoint epicardial electrodes were fixed to the surface of the heart and ECG readings were made at 30 points. The coronary artery was ligated as in the above experiment but loosened slowly after 20 minutes. Electroacupuncture was applied (to the same points as in the previous experiment) 5 minutes before the loosening, and stimulation was given for 20 minutes. Epicardial ECG was recorded for 15 minutes during ligation, stopped during acupuncture and resumed 15 minutes after acupuncture. A second ligation was made at the same site 30 minutes after loosening and maintained for 175 minutes. Beginning 15 minutes after the second ligation, the animals were given acupuncture four times for 10 minutes with intervals of 30 minutes. ECG readings were made before and after each needling. The procedure was the same for all animals, but the controls received no acupuncture.



*Gastroptosis: A lowering of the stomach.*

ECG readings were used as an indication of the extent and severity of myocardial injury. The data showed no difference in the extent of injury to the two groups of dogs after they had been ligated for 15 minutes the first time. There was a marked difference, however, between the two groups 15 minutes after loosening of the ligation, indicating that acupuncture had an "obvious immediate curative effect," say the researchers. And, they suggest "it may promote recovery of local injury." The difference between the two groups was even more apparent after 15 minutes of the second ligation. The extent of injury to the cardiac muscles of the acupuncture group was reduced markedly compared with that of the control group, showing, say the researchers, "that acupuncture could protect the cardiac muscle, raise its defense ability against the myocardial ischemic injury and prolong the therapeutic action." Morphological studies, they say, support these claims.

The researchers conclude that "acupuncture on the one hand may increase the coronary blood flow and blood oxygen supply, promote the collateral circulation; on the other hand may decrease the myocardial oxygen consumption and myocardial metabolic rate. Thus [acupuncture]

may remarkably reduce the extent and severity of myocardial ischemic injury." They add, however, that these findings are preliminary and much research remains to be done.

Gastroptosis is another condition being treated and investigated at the acupuncture institute. Symptoms of the condition consist of anorexia, abdominal pain and distention, diarrhea, belching, a heavy feeling of the stomach and other common symptoms of indigestion. Diagnosis is made by X-ray. If the angular notch of the stomach is below the level of iliac crests (the high points of the hip bones) and the fundus is more than 6 cm below that line, gastroptosis is indicated. The X-ray department at the Institute of Acupuncture and Moxibustion has data on 66 cases of gastroptosis. All patients had failed to respond to physiotherapy and to either Western or traditional Chinese medicine.

Acupuncture treatment for gastroptosis involves a needle long enough to scare some patients into recovery — approximately 10 inches long. The patient lies supine and the needle is inserted just under the skin at the xiphoid process (at the base of the breastbone). From there it is shoved slowly toward the umbilicus and is left in place for 40 minutes. Patients say they can feel an immediate tightening of the stomach.

X-rays taken after treatment show an elevation of the fundus in 70 percent of the patients. Relief of most clinical symptoms was achieved in approximately 50 percent of the patients, and improved muscular tonicity of the stomach was seen in most cases. Follow-up studies indicate that the procedure has lasting effects in many patients, and the Chinese feel that acupuncture therapy for gastroptosis has a "bright future."

This may be true in China, but acupuncture has yet to reach the stage at which it can be said to even have a future in the West. The Chinese claims of effectiveness will have to be verified, and their research findings (which they admit are preliminary at this stage) will have to be duplicated. This, however, may prove to be difficult since the Chinese have failed so far to generate much research interest in acupuncture. The American Medical Association is not investigating acupuncture at present and, except for some work on acupuncture analgesia, the National Institutes of Health is not pursuing acupuncture research with any degree of seriousness.

"If the Chinese really have it as their goal to convince people that acupuncture works," suggests David J. Mayer (see p. 298), "they had better get their act together." Once they show the technique to be effective, he says, people will begin to get interested. In the meantime, he says, acupuncture probably isn't doing any harm, but there is "no evidence that it is doing any good." To him it is still a "totally open question." □