



**Creating a New
Chinese Medicine
and Pharmacology**

*Creating a New
Chinese Medicine
and Pharmacology*

FOREIGN LANGUAGES PRESS PEKING

First Edition 1977

Contents

Creating a New Medicine and Pharmacology	1
New Developments in Fracture Treatment	21
Non-Surgical Cure of Acute Abdominal Diseases	43
New Treatment of Cataract	67

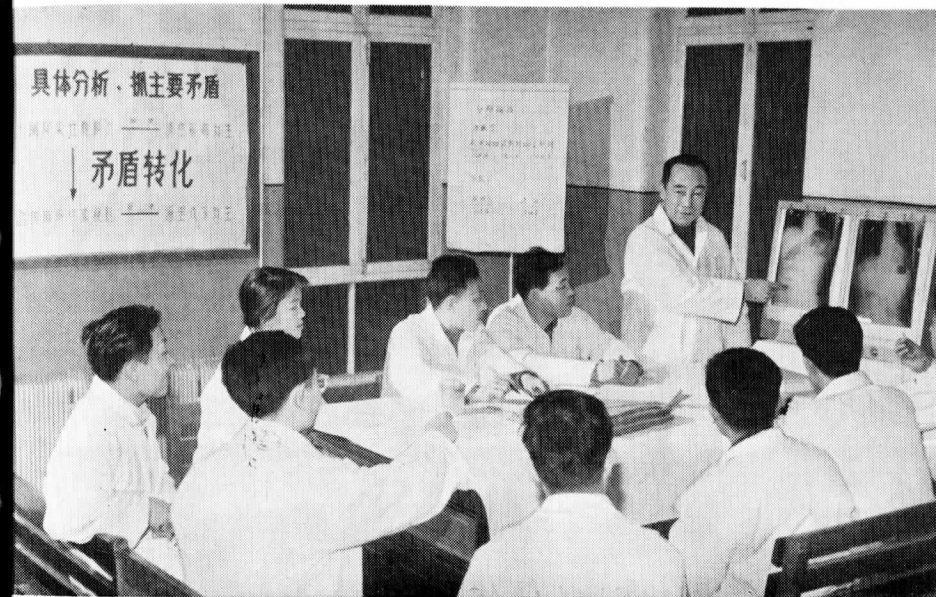
Printed in the People's Republic of China

團結新老中西各部分
醫藥衛生工作者，組成
鞏固統一戰線，為開展
偉大的反衛生工作
而奮鬥

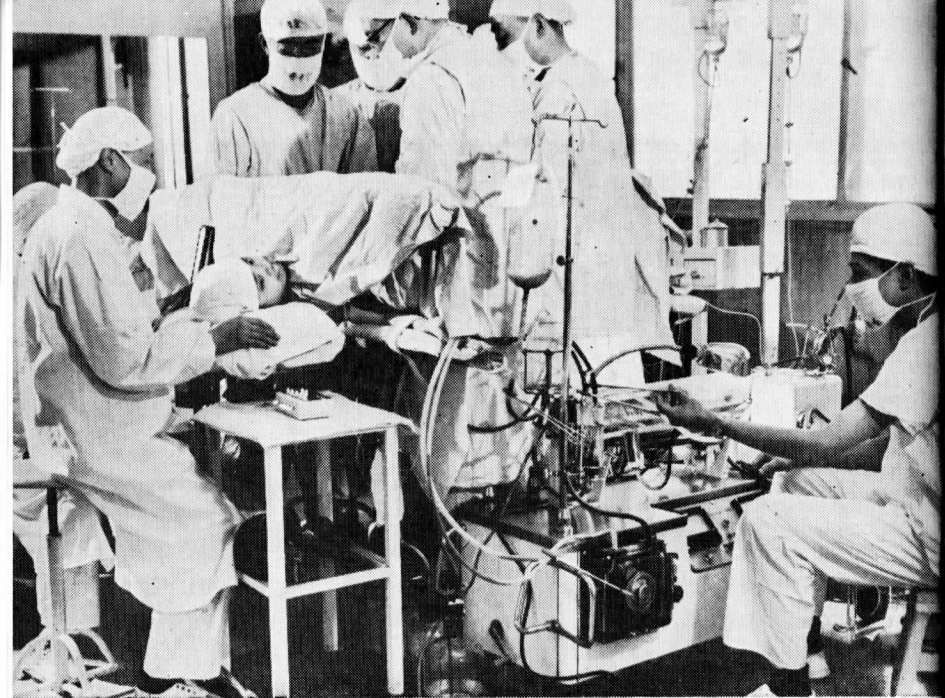
沈澤東

1	Creating a New Medicine and Pharmacology
21	New Developments in Fracture Treatment
43	Non-Surgical Cure of Acute Abdominal Diseases
67	New Treatment of Cataract

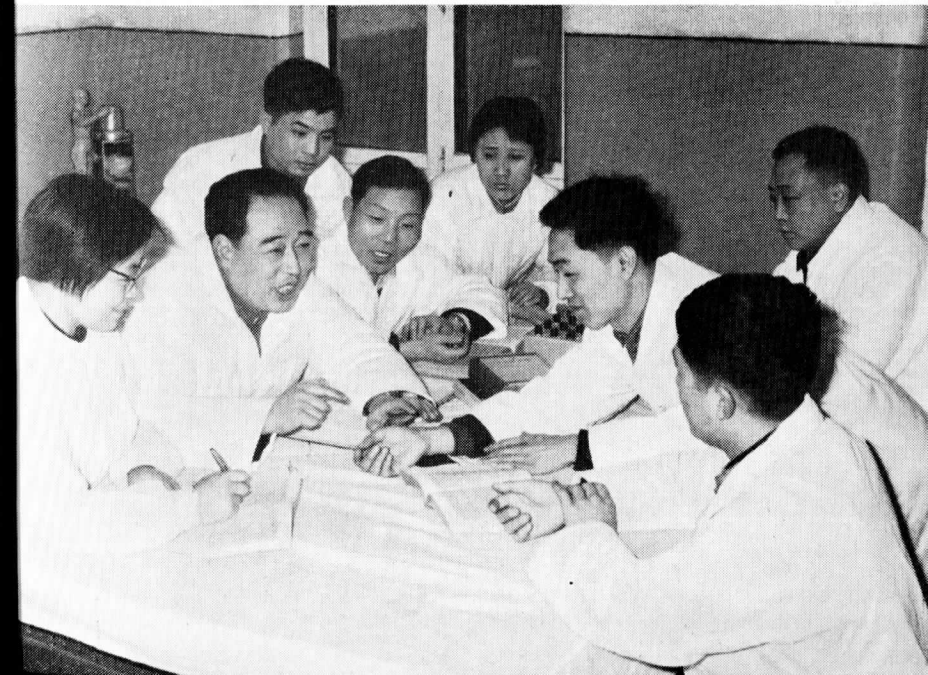
Facsimile of an inscription by Chairman Mao Tsetung in his own calligraphy. It reads: **"Unite all sections of medical and public health workers, veteran or new, Chinese or Western style, in a solid united front and strive to promote the great work of public health for the people."**



Chinese doctors apply Chairman Mao's philosophical thinking as a guide to medical practice.

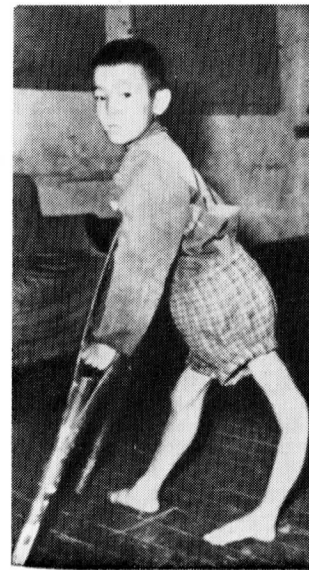


Direct-vision heart surgery with extracorporeal circulation under acupuncture anaesthesia.



Western-style doctors learn the traditional method of diagnosis by pulse-feeling.

Preparation of traditional herb medicines in quantity.



Combined Chinese-Western treatment restored Li Tso-chin to health after being crippled for more than ten years by infantile paralysis.
Inset: Li Tso-chin before treatment.



Cupping with bamboo segments aids treatment of rheumatism and the after-effects of trauma.

Creating a New Medicine and Pharmacology

LI CHING-WEI and TSAI CHING-FENG
Chinese Medical Research Academy

For more than a century two separate medical systems have existed in China: traditional Chinese medicine, and the modern medicine which was introduced from the capitalist countries of Europe in the mid-nineteenth century. Since the latter originated in the "West," the Chinese people called it "Western medicine." To organically combine Chinese medical and pharmacological knowledge with its Western counterpart and create a unified, new Chinese medicine and pharmacology is the correct orientation for the development of medicine in our country. Guided by Chairman Mao's revolutionary line in health work, the broad masses of traditional and Western-style medical workers in China have in recent years co-operated closely, teaching and learning from each other in medical practice and scientific research, in a concerted endeavour to realize this objective.

A Rich Medical Heritage

Traditional Chinese medicine is an extremely rich summarization of the experience acquired by the Chi-

nese people in thousands of years of struggle against disease. It is an important part of our country's brilliant ancient culture, and has played a tremendous role in safeguarding the health of the Chinese people and the vitality of the nation.

Extant documentation on classical medicine records that more than two thousand years ago the Chinese people had already learned from everyday experience to utilize the roots, stalks, leaves, flowers, fruit and bark of plants, various parts of animal bodies and many mineral substances to prevent and cure disease. Instances are the use of ephedra to alleviate asthma, radix dichroae for malaria, coptis against dysentery, rhubarb as a laxative, mercury to cure skin diseases and so forth. The efficacy of these substances has since been confirmed by modern scientific experimentation.

Huang Ti Nei Ching (Yellow Emperor's Manual of Internal Medicine) which appeared in the 5th century B.C., is China's first large medical work extant. It systematically records a wealth of experience in the art of healing as well as medical theory, part of it being devoted to acupuncture treatment.

Around the 2nd century, Chinese medicine advanced rapidly in its clinical aspects. In surgery, the renowned physician Hua Tuo pioneered in laparotomy under anaesthesia provided by spirits in conjunction with drugs. In internal medicine, these advances were highlighted by the description and treatment of certain febrile and other diseases such as amoebic and bacillary dysentery, influenza, pneumonia, appendicitis and so forth. Some of the methods recorded are still employed today by clinical practitioners. By the 4th and 5th centuries, such parasitic diseases as tsutsugamushi disease and taeniasis had

been described. Considerable progress was also made during this period in diagnosis by pulse-feeling, and a book specializing in pulse theory was written under the title *Mai Ching (Pulse Manual)*.

China's first educational institution devoted to medicine was founded around the 6th or 7th century. This was the government-run Academy of Imperial Physicians situated in Changan (today, Sian in Shensi Province), the Tang Dynasty capital. In it was a special division for the training of medical students, with an enrolment of three hundred, and such disciplines as internal medicine, surgery, "the five senses" (ear, eye, mouth, nose, and tongue), pediatrics, acupuncture and moxibustion, massage, and cupping. Around that time also a pharmacological work, the *Hsin Hsiu Pen Tsao (Revised Materia Medica)*, was compiled by the contemporary government authorities and circulated throughout the country as a criterion for the assessment and administration of medicinal substances.

By the 10th century China had invented vaccination with human pox to prevent smallpox. Later this method spread to the Arab countries and Europe. At about this time also, human figures of bronze and marked with the *jingluo* (meridional) acupuncture points were cast for the teaching of acupuncture. These bronze figures played a useful role in the dissemination of acupuncture techniques.

The Ming Dynasty pharmacologist of the 16th century, Li Shih-chen, compiled the mammoth 52-volume *Pen Tsao Kang Mu (Compendium of Materia Medica)*. This pharmacological work lists 1,892 medicinal substances and contains over a thousand illustrations. It was the culmination of thirty years of labour involving

the perusal of more than eight hundred pharmacological and related documents, ancient and contemporary, the collecting of all sorts of folk-lore on medicinal substances, as well as much investigation, research, classification and systematization. For each substance listed it gives a detailed account of its properties, origin, description, mode of collection and preparation, as well as principles governing prescription. The therapeutic effects of many of these substances have already been confirmed by clinical practice.

Contretemps and Rebirth

Traditional Chinese medicine was going forward on its own independent path when, due to changes in China's political circumstances, it met with unprecedented adversities.

China was invaded during the past century by imperialist powers, which carried on cultural aggression under the cloak of propagating religion, running hospitals and setting up schools, with the aim of enslaving the Chinese people. China's reactionary rulers pandered to the needs of the imperialists and promoted a policy of "over-all Westernization." They negated Chinese medicine and instigated serious rivalry between China's intrinsic medicine and pharmacology and their imported Western counterparts. They repeatedly drew up plans and measures to eradicate Chinese medicine. Maligning it as "unscientific" and a "stumbling-block" to the development of modern medicine, they barred practitioners of traditional medicine from city hospitals and medical colleges. The reactionary Kuomintang government in

1929 put forward six measures to abolish Chinese medicine. Among these were restrictions on the practice of medicine by traditional physicians, a ban on setting up schools of traditional medicine and on publishing books and periodicals on Chinese medicine. These repressive measures not only seriously hindered the development of China's traditional medicine but nearly extinguished it.

But, truth exists in objective reality, while the sole criterion of truth is practice. The Chinese people have learned from personal experience over the years that traditional medicine cures a wide range of disorders. And although it is impossible in many instances to explain in modern scientific terminology the healing powers of traditional medicine, this does not mean they are not scientific. Moreover, traditional Chinese medicine very often fills certain gaps in Western medicine. Add to these advantages the fact that Chinese medicaments can be prepared from locally available ingredients and it is not difficult to see why traditional Chinese medicine has constantly enjoyed high popularity and prestige among the people. This is the chief reason why it could survive despite the years of suppression and despoliation it suffered at the hands of imperialism and China's reactionary ruling classes. For more than a century traditional Chinese medicine has existed side by side with Western medicine in our country, and both are making salutary contributions to safeguarding the health of the Chinese people.

Radically different attitudes are taken by the proletariat and the bourgeoisie, by Marxists and revisionists, on the question of treating a country's own cultural heritage in relation to imported, foreign cultures. The Chi-

nese Communist Party and the people's government have consistently placed great importance on our country's traditional medicine. As for Western medicine, although introduced in China in the train of imperialist aggression, it is nevertheless a medical system crystallizing healing wisdom gained by peoples in the West over centuries of their struggle against disease, and it is useful to the Chinese people for the abundant experience and theoretical knowledge it embodies. Chairman Mao Tsetung advocated the use of both Chinese and Western medicine as early as in the 1920s, during the First Revolutionary Civil War (1924-27). In that war, as in the War of Resistance Against Japan (1937-45) and the War of Liberation (1945-49), Chinese and Western-style doctors worked side by side in the revolutionary armies and base areas (Liberated Areas) led by the Communist Party, each making contributions to the revolutionary cause.

The founding of the People's Republic of China in 1949 tore down the artificial barriers between Chinese and Western medicine left by the old order, and marked the rebirth of China's traditional medicine. In 1950, the Ministry of Public Health convened the First National Conference on Health Work for which Chairman Mao inscribed the following words in his own hand: **"Unite all sections of medical and public health workers, veteran or new, Chinese or Western style, in a solid united front and strive to promote the great work of public health for the people."** From then on, to unite traditional Chinese and Western medicine became the policy in China's health work. Under the guidance of this correct policy of the Party, relations between Chinese and Western-style doctors began to change for the better. Old mutual an-

tagonisms and discrimination against traditional practitioners in favour of Western-style doctors gradually gave way to a new atmosphere of unity, co-operation and learning from each other.

In 1955 the Ministry of Public Health founded the Chinese Medical Research Academy in Peking. Many traditional practitioners began working in large hospitals of Western medicine, while colleges of traditional Chinese medicine were founded in Peking, Shanghai and other places. At the same time, a class in traditional medicine was organized for doctors of Western medicine, to which more than seventy Western-style doctors from the country at large gathered in Peking to learn traditional medicine under the tutorship of veteran practitioners. Two and a half years of study in theory and clinical practice thoroughly impressed these Western-style doctors with the distinct therapeutic effects obtained with Chinese medicine in the treatment of many disorders, that Chinese medicine offered a cue to solving many problems not solved by Western medicine. The confidence of these doctors was strengthened, their resolution firmer to pursue further investigation and exploration into Chinese medical theory in the light of modern scientific methods.

In 1958, Chairman Mao issued the call: **"Chinese medicine and pharmacology are a great treasure-house, and efforts should be made to explore them and raise them to a higher level."** The broad masses of medical workers eagerly responded. Before the year was out, thousands of doctors of the Western school were conscientiously studying, investigating and using traditional Chinese medicine, and the Western-style doctors' enthusiasm for traditional medicine rose to high pitch.

In the decade and more prior to the Great Proletarian Cultural Revolution, however, Chairman Mao's revolutionary line in health work was time and again seriously interfered with and sabotaged by Liu Shao-chi and his associates. They openly clamoured that "Western medicine and pharmacology will inevitably replace traditional Chinese medicine and pharmacology," that "Chinese herb medicine cannot cure serious illnesses" and so on and so forth, entirely negating traditional Chinese medicine. Guided by Chairman Mao's revolutionary line, China's health workers sternly criticized all such discriminatory thinking against traditional medicine and rejecting it. They promoted further advances in this field, from scientific research and teaching to clinical practice.

During the Great Proletarian Cultural Revolution, the political consciousness of China's medical workers was raised as they studied seriously Chairman Mao's teachings. Liu Shao-chi's revisionist line in health work was repudiated, making way for greater progress in taking over and developing traditional Chinese medicine.

Working in close co-ordination, Chinese and Western-style doctors employed modern scientific methods to conduct extensive research into China's medical and pharmacological heritage. New successes were attained in the movement to criticize Lin Piao and Confucius. Traditional medicine and pharmacology, as well as combined Chinese-Western methods, are now being used to deal with a gradually widening range of diseases, and a number of uncertain and difficult diseases have been successfully treated. Progress has also been made in the autochthonous medicines of the Tibet Autonomous Region and the Inner Mongolia Autonomous Region, as well as in the national medicine of the Uighurs in Sinkiang.

Today, the Chinese Medical Research Academy in Peking, which has undergone rapid expansion in both personnel and modern equipment, simultaneously engages in the three closely interconnected tasks of research, teaching and medical treatment in the fields of traditional medicine, traditional pharmacology and acupuncture. Most provinces and cities have established institutes of research in Chinese medicine, while many have founded colleges of Chinese medicine or run traditional medicine classes and research set-ups in existing colleges of Western medicine. Departments specializing in various branches of traditional Chinese medicine are to be found in a majority of the hospitals throughout China. Apart from this, thousands of ancient Chinese medical treatises have been compiled, annotated and revised, and a number have been reprinted in photogravure or reset and republished. A great many new works on Chinese medicine have been written and published too.

Many fresh developments have been made in recent years in the use of traditional medicaments, notable among these being the oral administration of Chinese herb medicines in non-surgical treatment of certain disorders. Herbs, which occupy the major portion of the traditional practitioner's pharmacy, are efficacious and available at low cost in every part of China. In addition to the 1,800 varieties recorded in Li Shih-chen's *Compendium of Materia Medica* published in 1578, nearly a thousand new varieties have been found to be effective in the past few years — more than double the number found in the post-liberation years before the Cultural Revolution. China's medical workers and pharmacologists analyse or synthesize these herbs and are thus able to produce hundreds of medicaments that utilize the me-

dicinal herbs in a more scientific way. Time-honoured Chinese therapies such as acupuncture, *tui na* (manipulative therapy) and *chi kung* (breathing therapy) are also finding wider use than ever before.

Acupuncture, with a history of more than four thousand years, is one of the major therapeutic techniques in China's medical heritage. It came into wide use after liberation and made some progress. Constant research and improvement in the past few years have widened its range of application and raised its therapeutic value. Hundreds of diseases are now treated by acupuncture with good effect.

On June 26, 1965, Chairman Mao issued the brilliant directive: **"In medical and health work, put the stress on the rural areas."** In the ten years since — years of the Great Proletarian Cultural Revolution and the movement to criticize Lin Piao and Confucius — a nationwide campaign to set up medical and pharmaceutical services of a type run by the masses has been launched, and a series of revolutionary changes have occurred on the health front. Co-operative medicine has taken root everywhere; millions of "barefoot doctors" are maturing. Large numbers of urban medical personnel have gone on medical tours in rural and frontier regions, most of them skilled in both traditional Chinese and Western-type methods in treating the commonly seen diseases. All of these measures have created the conditions for promoting the general use of Chinese medicinal herbs, new methods of treatment and combined Chinese-Western medicine. The number of urban Western-style doctors studying Chinese medicine full-time is more than ten times that before the Cultural Revolution, while those studying part-time or in their spare time number ever so many more. All grad-

uates from institutes of either traditional Chinese or Western medicine today, while majoring in one type or the other, have a knowledge of both.

Combining Chinese and Western Medicine

Traditional Chinese and Western medicine are two separate medical systems which evolved under different historical conditions. Chinese medicine embodies the accumulated experience of several thousand years of clinical practice as well as a set of distinct theories. Western medicine is marked by modern scientific knowledge and advanced scientific techniques. Each system has its merits and strong points as well as its limitations and shortcomings, and it is quite wrong to totally affirm or negate either. The task confronting China's medical and health workers is to carry out Chairman Mao's instruction of **"making the past serve the present and foreign things serve China"** and, using the viewpoint and methods of dialectical materialism, critically take over, absorb and combine the good points of both Chinese and Western medicine, integrate the two systems in the course of medical practice, creating a unified, new medicine and pharmacology superior to either of the present-day systems to serve the broad masses of working people.

Combining Chinese and Western medicine and pharmacology does not mean simply adding the one to the other, and certainly not replacing Western medicine and pharmacology by their native counterparts or vice versa. What is meant is the organic combination of the two medicines, filling in the weaknesses of the one with the

strong points of the other and raising the level of both, eventually evolving a new medical science incorporating the best features of both. China's medical workers advise: "Develop in the process of taking over, create while combining." This is the correct attitude. It is only by standing firmly for "creation" that we will succeed in raising China's medical science to new levels and make greater contributions to mankind.

To do this will require many years of arduous work. In the past decade or so China's medical workers have worked out many ways of combining Chinese and Western medicine, e.g., the use of modern scientific methods to analyse and study traditional medicine; clinical practice guided by traditional Chinese medical theory coupled with Western medical therapy; joint Chinese-Western diagnosis, or Western medical diagnosis and traditional Chinese treatment, followed up by combined observation of therapeutic effect. Co-operating closely in medical practice, Chinese and Western-style doctors have already gained a certain amount of experience. They have found that traditional Chinese treatment is more effective in certain illnesses and Western treatment in others, but that in the majority of cases the best is combined Chinese-Western diagnosis and treatment, which brings together the best features of both. A deeper understanding of the nature of the illness is achieved, as well as a wider selection of diagnostic and curative means.

Practice has made China's medical workers of the Western school acutely aware that the key to combining Chinese and Western medicine lies in Western-style doctors learning Chinese medicine — taking the dialectical-materialist stand and employing modern scientific methods to conduct serious exploration and investigation into

China's medical heritage. There can be no question otherwise of taking over and carrying forward China's excellent medical traditions, and combining Chinese and Western medicine would become empty talk.

While encouraging doctors of the Western school to learn Chinese medicine, China also stresses summing up and popularizing the rich practical experience of veteran Chinese practitioners and encourages them to learn Western medicine and pool efforts with their colleagues of the Western school in the common cause of developing our country's medical science.

Combining Chinese and Western medicine is a deep-going revolution on China's medical, health and pharmacological education front, and as such has at all times been contested in bitter struggle between two opposing lines and ideologies. Liu Shao-chi and Lin Piao, those faithful disciples of the old-time reactionary rulers and representatives of the interests of the decadent classes, pursued a counter-revolutionary revisionist line and propagated the ways of Confucius and Mencius. In health work, they at first totally negated traditional Chinese medicine and pharmacology. Then, after their national-nihilistic ravings had been repudiated, they did a complete volte-face and preached "wholly and completely accepting" and "taking over in their entirety" traditional Chinese medicine and pharmacology, spreading in effect the ultra-conservative doctrine of "going back to the ancients." Their revisionist line and the Confucian-Mencian ways they touted were penetratingly castigated as the Great Proletarian Cultural Revolution and the movement to criticize Lin Piao and Confucius unfolded in breadth and depth, and new steps were taken towards combining Chinese and Western medicine.

Today, integrated traditional Chinese and Western medical methods are widely applied in such branches as internal medicine, surgery, gynaecology, obstetrics, orthopaedics, ophthalmology, and ear, nose and throat, while in physical therapy, laboratory work and radiology, a similar combination is showing good results. Co-operation between Chinese and Western-style doctors has reached a new level, with doctors of both schools jointly diagnosing, treating, observing, summing up and analysing cases, then jointly improving therapeutic methods. Such close co-ordination has already yielded new therapies, new theories and new techniques in a number of medical branches. The new therapies differ from either the Chinese or the Western methods from which they derive. They are simpler, cheaper, more efficacious, of shorter course and consequently more readily accepted by the working people.

Preliminary Results

Acupuncture anaesthesia is one of the results of combining traditional Chinese and Western medicine. Created on the foundation of ancient Chinese acupuncture techniques and medical theory, this type of anaesthesia, as well as its evolution from conventional acupuncture treatment, signal an entirely new development in the history of Chinese acupuncture. In the course of learning traditional Chinese medicine, Western-style surgeons noticed that acupuncture alleviated pain, especially that in the wound after surgery, the analgesic effect in some cases better than when morphine is used. This discovery

led to the concept of replacing drugs with acupuncture to produce anaesthesia. The first operations done with acupuncture anaesthesia were such minor operations as tonsillectomies and the like. Subsequently, electrophysiology and other modern techniques and equipment were employed in conducting exhaustive observations of physiological changes in patients under acupuncture anaesthesia. The techniques of acupuncture anaesthesia were gradually improved, methods of application progressively simplified and its analgesic effect stepped up. At its present stage it already constitutes an entirely new type of anaesthesia, different from the acupuncture practised by traditional Chinese physicians to stop pain and the drug anaesthesia used by Western-style doctors. Its advantages are: simplicity and ease of application, minimal disturbance of the physiological functions, and awareness of the patient during the operation, a definite asset in the surgery. There is virtual absence of post-operative complications, so that recovery is speedy. This new method of anaesthesia is now being used extensively in head, neck, chest and abdominal surgery. New developments in acupuncture anaesthesia include its application in such relatively complicated operations as direct-vision heart surgery with extracorporeal circulation, and also in rejoining severed limbs.

Another notable achievement in the wake of discovering acupuncture anaesthesia is the resurrection after more than a thousand years of Chinese herbal anaesthesia. The anaesthetic agent is produced from the Chinese medicinal herb mandragora. Injected intravenously in conjunction with a suitable amount of wintermin, it acts as a general anaesthetic within a few minutes. This anaesthetizing

agent was first produced through joint research by traditional and Western-style doctors of the hospital attached to the Hsuchow Medical Institute in Kiangsu Province. Their success was the outcome of investigation into old historical records on the use by the famous physician Hua Tuo of "Ma Fo San" in abdominal surgery, and on study of ancient pharmacological documentation on the narcotic effect of mandragora. This new general anaesthetic is applicable to all types of major and medium operations. It can also be administered orally or as an enema, or injected intramuscularly. Its use has been popularized throughout the country. Since 1970, more than forty thousand patients have had surgery under herbal anaesthesia, with excellent results.

Even more remarkable are the achievements of combined Chinese-Western medicine in clinical treatment. Doctors of Western medicine had always treated acute abdominal disorders such as acute appendicitis, extra-uterine pregnancy, biliary ascariasis and gall-stones, once diagnosed, by surgical intervention. Clinical records kept by traditional Chinese practitioners indicated, however, that many such cases were amenable to Chinese herb medicines, obviating surgery. Considerable change in over-all concept and specific treatment has taken place in dealing with acute abdominal disorders. In the new combined Chinese-Western treatment, some old conventions in Western medicine have been broken through, while traditional Chinese medical theory and methods of treatment have been amplified and raised to a higher level. A new method of treating acute abdominal disorders which originates from Chinese and Western medicine but is higher than either is being created.

Guided by Chairman Mao's philosophical thinking, Chinese orthopaedists have swept aside the metaphysical viewpoint of "complete immobilization" in treating bone fractures. Combining the vast experience accumulated by traditional Chinese practitioners with the good features of Western medicine, such as X-ray examination and reduction under anaesthesia, they have created a distinct system of treatment in bone fractures.

The "couch and snare" method of treating cataracts of the eye is the product of research by ophthalmologists in the Kuanganmen Hospital, attached to the Chinese Medical Research Academy. In creating this new technique they have taken over the best features of the ancient Chinese "Gold Needle Cataract Couching" operation and incorporated surgical methods from modern medicine. The method has shown good results in clinical application.

The realms explored by China's medical and pharmacological workers continue to broaden as the work of combining Chinese and Western medicine advances. Varying degrees of progress have been made in combined Chinese-Western treatment of chronic tracheitis, acute infectious diseases, coronary arteriosclerotic heart disease, tumour and burns. Inspired by the effectiveness of ancient Chinese acupuncture treatment for hemiplegia, Chinese medical workers have in recent years created the new "head needling therapy" — a technique founded on the theory of functional divisions of the cerebral cortex and incorporating modern physiological and anatomical knowledge. This treatment has proved fairly effective in treating certain aftereffects of diseases of the cerebral blood vessels and arteriosclerotic numbness of the limbs.

Science is constantly advancing, and mankind's cognizance of the objective world knows no limits. While China's medical and pharmacological workers have accumulated much successful experience in clinical treatment with combined Chinese-Western medicine, these have in turn engendered many fresh subjects for research, especially concerning medical theory.

From the viewpoint of Western medicine, for instance, bronchial asthma, lupus erythematosus and functional bleeding of the uterus are entirely unrelated disorders requiring separate methods of treatment. Traditional medical theory and diagnosis, however, ascribe these diverse disorders to similar pathogenic causes, placing them in the category of "shen hsu" ("debility of the virility"), and postulating that all can be cured by the "pu shen" method, or "revitalizing the virility." Satisfactory results have been obtained in many cases treated in accordance with this formula. But how are we to explain this principle of "treating diverse disorders by the same method"? Initial findings of scientific experimentation show certain similarities in the pathological mechanism of these ailments. All patients, for instance, manifest functional disorders of the hypothalamus — pituitary gland — adrenal cortex, and all respond satisfactorily to traditional "pu shen" treatment. As to why, and through what channels, "pu shen" corrects the above-mentioned disorders, further investigation is required.

Also, traditional medical theory calls for diverse methods of treatment for the same illness — hypertension, e.g., because different symptoms are manifest in different persons. Even in the same person, treatment

varies according to the stage of development of the disease. Again, what are the basis and principles underlying "treating the same ailment by diverse methods"?

While a good deal of positive experience has been gained in the clinical aspects of, say, acupuncture anaesthesia, its underlying principles require further exploration using modern scientific methods. This work is now in progress. Eventually, as the fundamental causes and effects of acupuncture anaesthesia are systematically established, their value will not necessarily be limited to the turning of a new page in the annals of anaesthesiology, but may open up broader vistas in our understanding of the human body.

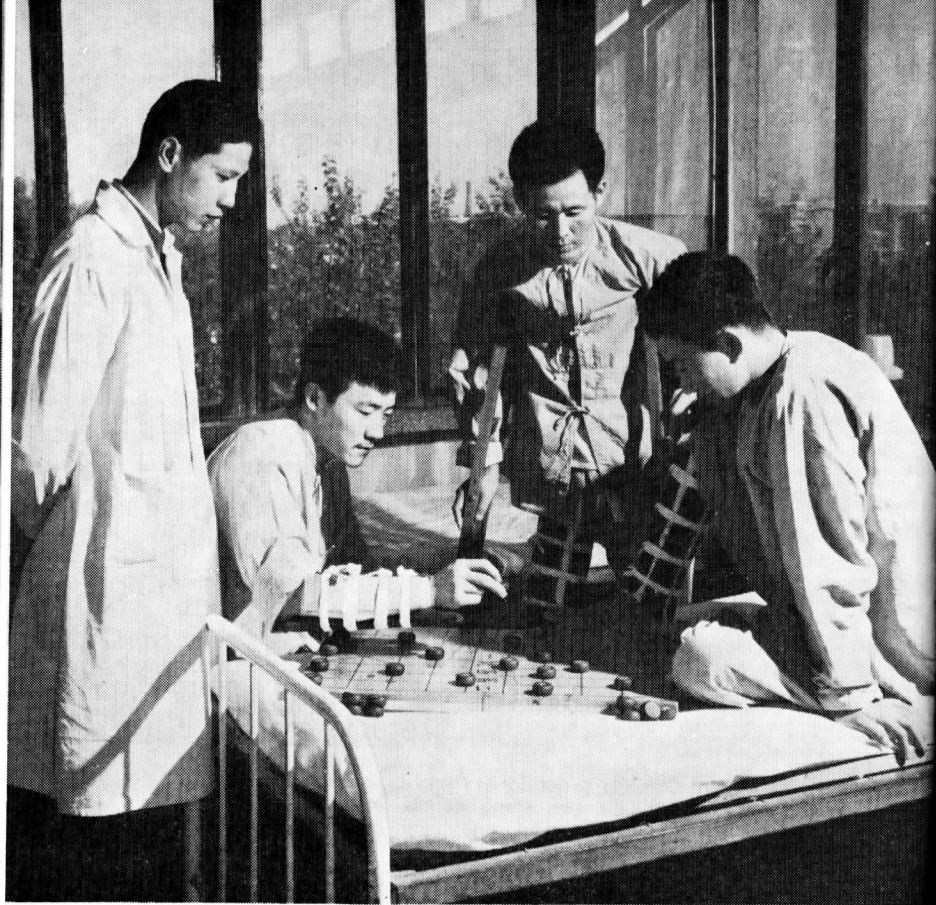
Also in need of more study are a number of questions over which the traditional viewpoints and treatments of Chinese and Western medicine are at variance. Why, for example, is acute appendicitis cured by mild laxation without surgery, when Western-style doctors have always held that laxatives and analgesics are absolutely taboo? How does Chinese herb brew taken by mouth cause gradual absorption of the ectopic fetal mass in extra-uterine pregnancy? How does orally administered Chinese medicine induce withdrawal into the intestine of round-worms in the common bile duct? How to explain stones in the urinary and biliary system "softening" after the administration of Chinese medicine, and their passing out of the body through the urinary or intestinal tract, sparing the patient the pain and trouble of surgery? These and other questions call for sustained experimentation and investigation, the purpose of which will be to sum up clinical experience and raise it to the level of modern medical theory. This in turn will guide

the continued progress of clinical work in combined Chinese-Western medicine.

We are confident that, following continued exploration into the treasure-house of Chinese traditional medicine and pharmacology, the combining of Chinese and Western medicine will proceed at a faster pace and our grand ideal of creating a unified, new Chinese medicine and pharmacology will be steadily realized.



A veteran Chinese practitioner teaches orthopaedists of the Western school to use small splints in treating fractures.



Local fixation with small splints enables fracture patients to move about freely.



Patients doing functional exercises under the guidance of doctors and nurses.



Patient with a fractured forearm is treated in the hospital (left) and given follow-up examination by the hospital staff after returning to work (below).



New Developments in Fracture Treatment

SHANG TIEN-YU
Tientsin Hospital

In 1958, a year of the Great Leap Forward period, we medical workers of the Tientsin Hospital's orthopaedics department took our first step on the road of combining Chinese and Western medicine. That was when we began to promote the study of Chinese medicine by doctors of the Western school and conduct research into traditional Chinese methods of fracture management. Now, after a period of clinical practice in which we have treated tens of thousands of fracture patients, we have initially worked out a set of new methods for the management of fractures. These combine both Western and Chinese medical experience and incorporate such features as manual reduction, small-splint immobilization and functional exercises. Applicable to common fractures in all parts of the body, this new system of methods relieves many patients of the suffering caused by plaster cast immobilization. Bony union is speeded up, functional recovery improved and medical costs are lowered.

Two Types of Management

Fractures are a common injury. Prior to 1958, our hospital treated fractures exclusively by the Western

method. Acting upon the principle of "complete rest and extensive immobilization," we would place the patient under anaesthesia upon admittance to the hospital, fit the fractured bone ends together and, if successful, encase the injured member in plaster of Paris, invariably including the joints above and below the point of fracture. The patient's entire limb was in this way immobilized. Or, pins were driven through the bone and ropes attached to them by which the patient's limb was suspended from a traction frame, keeping the patient flat in bed for two or three months. In relatively complicated fractures or fractures of the joints, where the bones could not be reduced or would not remain fixed even in a plaster cast, we would operate, incising skin and flesh, separating the periosteum and joining the bone ends with the aid of steel pins or screws and plates, sometimes also applying a plaster cast. Such prolonged immobilization caused the patient much suffering. And if the bones had not united after three months, the immobilization was continued. Even if the bones did unite, the limb recovered its functions only after quite some time. In general, the alignment was good, but healing was slow and the period of treatment extended. Moreover, complications sometimes set in, such as stiffening of the joints, muscle atrophy and so forth.

The traditional Chinese practitioners had some unique theories and methods in treating fractures. In contradistinction to the Western doctors' principles of "complete rest" and "extensive immobilization," the Chinese practitioner advocated "combined quiescence and movement" and "internal and external treatment." Medical documentation from as far back as the Tang Dynasty (618-907) states that a fracture of the joint, after reduc-

tion, "should be rotated, covered with a poultice, wrapped in strips of silk and then moved from time to time... stretched or flexed at intervals." With regard to treatment of the injury, the theory says: "Liven the blood to dissolve the ecchymosis, eliminate the ecchymosis to generate the new." This theory also holds that "an ecchymosis is certain to be formed when the injury is internal and the skin not broken." "Internal treatment consists first and foremost of livening the blood to dissolve the ecchymosis, for if the blood is not livened the ecchymosis will not go, and if the ecchymosis does not go the bone will not join." This states the theoretical foundation of the traditional Chinese orthopaedist's management of fractures.

In reducing fractures, however, the Chinese orthopaedist did not employ anaesthesia or rely on X-ray. Drawing instead upon a vast store of clinical experience amassed over the centuries, he reduced the bones by dexterous manipulation, applied a poultice to relieve pain and inflammation and tied a splint to the injured member without, however, including the joints above and below the fracture. During the entire period of convalescence the patient was able to exercise the injured limb and his entire body appropriately. At the same time he was given bone-mending pellets to "liven" the blood and absorb the ecchymosis so as to promote union. This method of treatment brought the patient speedy recovery with minimum physical discomfort and cost. It produced excellent results in ordinary fracture cases. In complicated fractures or fractures of the joints, however, reduction was unsatisfactory and fixation unstable, frequently resulting in faulty bone union which affected

both the appearance and functional recovery of the affected limb.

Hence, the traditional Chinese practitioner and the Western doctor both had their strong and weak points in the management of fractures. How, on the basis of carrying forward the fine traditions of Chinese medicine, we were to combine the strong points of the two methods and create a new form of treatment of utmost benefit in fracture sufferers was the task we set ourselves.

Preparatory Study

Combining Chinese and Western medicine was by no means plain sailing. Two schools of thought became apparent when we began studying Chinese medicine. The majority maintained that in the course of combination we should explore and systematize China's medical heritage and improve upon it, that this was in line with Chairman Mao's teaching. Some, however, insisted that traditional Chinese orthopaedics was "primitive, backward and unscientific," that for Western-style doctors to learn Chinese medicine was "going in reverse." Under Party leadership we criticized this derogatory attitude towards China's medical heritage and joined enthusiastically in the popular movement to learn Chinese medicine.

We invited to our hospital Chinese practitioners with experience in traditional orthopaedics to learn from them in the course of actual treatment. From the outset we were fascinated by the way the traditional Chinese orthopaedists kneaded fractured bones into place, applied poultices and tied on bamboo splints. What especially

won our admiration was their highly skilled manipulation in reduction. And so we proceeded to learn, following exactly what they did. Many of us had our doubts about their means of immobilization, however, which differed radically from the Western doctors' approach. Might the outcome not be non-union of the bones, or other complications? After a period of clinical practice and X-ray examination, we found that the traditional Chinese orthopaedists' methods of immobilization had indeed many advantages. Not only was bony union highly satisfactory; the time required for union was also conspicuously shortened. These unexpected results gave the first shake to our faith in "extensive immobilization" and "complete rest," and spurred us to greater effort in our study of traditional Chinese medicine. We soon summarized the traditional orthopaedists' experience in the treatment of fractures of the humerus and of the inferior extremity of the radius.

This initial breakthrough was followed, however, by a period of stagnation during which our application of traditional Chinese methods remained limited to these two simple fractures. Some doctors found the constant heating of poultices and binding on of bamboo splints monotonous, and they began to suspect that the traditional orthopaedists had little else in their repertoires, that nothing more was to be learned from them. Others wished to know more, but complained that they did not know where they were to learn it from. There were also such cynical remarks as: "Didn't I tell you Chinese medicine won't work, that it can handle only simple breaks? More complicated fractures still require surgery and plaster of Paris." In this renewed clash between two opposing ideologies and lines, a number of doctors began

to back out, afraid they would make no headway in Chinese medicine and lose out in Western medicine as well.

The Party organization now led us in a search for the crux of the problem, and in the discussions that followed points were raised that clarified our thinking. Could our learning from one or two traditional practitioners be considered really exploring China's traditional medical treasury? Could taking over the traditional orthopaedist's procedure intact be equated with improving upon it? Although traditional Chinese and Western-trained doctors were sitting together in discussion now, the techniques of each remained distinct and separate with no interchange or intermingling. Was this "combining"? The answer in each case was obviously no. It was permissible, at the outset, for Western-trained practitioners with no previous contact with traditional Chinese medicine to learn individual methods of treatment from individual practitioners. But, once initiated in the fundamentals of Chinese medicine, they should step out of these narrow confines, look further afield and make extensive explorations into China's medical heritage.

Bearing in mind our aim of developing Chinese medicine on the basis of carrying it forward and creating new techniques in the course of combining it with Western medicine, we proceeded, first, to invite to our hospital all traditional practitioners in Tientsin with experience in orthopaedics to discourse on their experience and give demonstrations. Second, we sent out personnel to learn from veteran Chinese practitioners in the country at large. The immediate effect was to broaden our outlook and open our minds. We discovered that, while Western orthopaedic methods were basically uniform throughout the world, traditional Chinese fracture management dif-

fered virtually from doctor to doctor, each employing distinctive bone-setting methods, immobilization appliances, massage techniques and internal and external medication. Each had his own special procedures. We realized that, far from what the cynics said, Chinese medicine was in reality an inexhaustible storehouse of knowledge. What we lacked was painstaking investigation and active exploration of this storehouse; it was not a question of where to learn it from. We felt that we should first break down the prejudices between the various schools of Chinese medicine and adopt widely from the good features of each; that we should then proceed further to demolish the barriers between Chinese and Western medicine, absorb the best of both, discard the worthless and organically combine Chinese and Western medical knowledge in a quest to create a new medicine.

Revolution in Fracture Treatment

On the basis of extensive and thoroughgoing study into theory and practice of traditional Chinese orthopaedics, we analysed both the traditional and Western forms of fracture treatment, from guiding concept and principles of management to actual techniques. In this we were guided by Chairman Mao's philosophical thinking. Chairman Mao taught us: **"There can be no differentiation without contrast. There can be no development without differentiation and struggle."** In the process of analysis, research and comparison, we realized that traditional Chinese and Western fracture treatment differed not only in the methods employed; more important was the divergence in guiding concept.

The Western-style orthopaedists' principles are "extensive immobilization" and "complete rest." In treating fractures they stressed immobilization and passed over movement, concentrated on the broken bones and disregarded the role of the muscles and other soft tissues, and focused attention on the fracture site to the neglect of the rest of the limb and the body as a whole. They relied on external mechanical means in reduction and immobilization of the fracture, treating a person's limb as some tool or appliance under repair and overlooking the powers of immobilization inherent in the limb itself as well as the subjective initiative of the patient. The Western-style practitioners' one-sided striving for anatomical alignment and absolute immobilization adversely affected fracture healing and functional recovery. These practices were reflections in fracture treatment of the mechanical materialist and metaphysical viewpoints. The extensive plaster-cast immobilization including the upper and lower joints, protracted and uninterrupted bone traction, the surgical intervention and metallic internal fixation — all stem from such thinking.

The traditional Chinese orthopaedist, who advocated "combined quiescence and movement," took into consideration the activity of the limb in immobilizing the fracture. In application, this meant confining the immobilization to the locality of the break and not including the joints above and below it. The extremities thus immobilized were movable. This was called "motion within quiescence" and "quiescence within motion," and involved some simple dialectics. Due, however, to limitations of a historical nature, and especially to the rejection and devastation of Chinese medicine by the foreign imperialists

and domestic reactionary ruling classes in the last century, the traditional practitioners' healing methods had never been scientifically systematized. Appliances for external immobilization differed from doctor to doctor and there was no unified method of bandaging. The traditional orthopaedist also lacked modern scientific knowledge concerning post-fracture pathological and physiological changes as well as an understanding of the principles of dynamics in external fixation. Traditional Chinese fracture treatment, therefore, also had its limitations. Fixation was occasionally unstable, and early use of the limb difficult to achieve.

Guided by Chairman Mao's teaching, "**the law of the unity of opposites is the fundamental law of the universe,**" we drew a number of conclusions: Immobilization and movement are equally important; fracture healing and functional recovery ought to be mutually complementary; local treatment and over-all treatment should be given equal attention, and external factors are effective through the internal factors of the patient's body. None of these aspects should be stressed to the neglect of the other. On this basis we formulated four new principles for the management of fractures: "Combination of activity and quiescence" (combining immobilization and movement); "equal emphasis on bones and sinews" (stressing the healing of the bones and the muscles and other soft tissues equally), "simultaneous internal and external treatment" (attention to both the fracture and the patient as a whole) and "co-operation between doctor and patient" (close co-ordination of therapeutic measures and the patient's subjective initiative). We also developed specific measures for applying these principles.

With traditional Chinese orthopaedics as the basis and incorporating modern medical knowledge, we worked out eight methods of fracture reduction, which if flexibly applied should achieve anatomical or near-anatomical alignment in various types of fractures. From the different immobilization means — wooden boards, bamboo slats, cardboard strips etc. — used by the traditional orthopaedists, we selected willow wood for its elasticity, resilience and relative plasticity, and designed twelve sets of splints of this material for use in different fracture positions. With these we were able to maintain fractures in their reduced attitude. Taking into account the different positions and types of fractures as well as their stability after reduction, we worked out a set of exercises for each type of fracture, to be used by the patients on their own initiative. We found fracture healing markedly speeded and functional restoration satisfactory. At the same time, we retained the good features of Western orthopaedics, such as X-ray diagnosis, reduction under anaesthesia, short-term traction when necessary and so forth. A new method of fracture management took initial shape, one that combined both Chinese and Western methods and featured manipulative reduction, small splints and voluntary functional exercises by the patient.

A fundamental change in both theory and practice was thus effected at our hospital in the management of fractures, finally ending the period of stagnation. Solutions were found one after another to formerly unsolved fracture problems, such as fracture of the surgical neck of the humerus, supracondylar fracture of the humerus, fracture of the shaft of the femur and fractures of the tibia and fibula. Many patients were spared the operating table,

traction frame and plaster-cast immobilization. The wards, too, underwent a vast transformation away from “forests of frames, networks of cables and patients laid up for three-month periods of misery in plaster casts.”

From Simple to Complex

Initial progress had by now been made in combining traditional Chinese and Western management of fractures of the bone shafts of the limbs, and a host of facts were beginning to convince people of the advantages of Chinese-Western combined treatment. A minority, however, were still sceptical. Conceding that ordinary fractures could be handled by this new form of treatment, they maintained that complicated fractures requiring surgical intervention and fractures within the joints could not. An example they cited was fracture of the forearm in adults.

Side by side in the forearm are two bones, the radius and the ulna, the former capable of revolving about the latter. When these bones are fractured, the four sections go askew and are extremely difficult to align correctly. And even if properly aligned, displacement is likely to re-occur during plaster-cast immobilization. In such cases, therefore, most Western-style doctors in China and abroad advocated open reduction by operation and internal metallic fixation. But, due to disruption of blood distribution as a result of surgery, the fractures were as a rule slow in healing, while approximately 10 per cent did not unite at all. Some doctors asserted that the non-union was due to infirm immobilization and recommended the use of longer steel plates and more screws. A few went so far

as to use double plates, which only increased the patients' discomfort and complicated treatment. When we first started to use traditional methods in treating this type of fracture, malposition of the bone ends occurred to varying degrees and functional recovery was less than ideal due to unsatisfactory reduction and fixation. Consequently it was argued that complex fractures of the forearm could be dealt with only by surgery. Was the treatment of such fractures really such a big problem?

Chairman Mao said: **"Every form of motion contains within itself its own particular contradiction. This particular contradiction constitutes the particular essence which distinguishes one thing from another."** The radius and ulna of the forearm are maintained in close juxtaposition by their upper and lower joints and the interosseal membrane lying between them. When fractured, four types of deformity are apt to occur between the upper and lower bone ends, namely: rotation, overlapping, angulation and forking. Both bones must be accurately aligned and all four deformities corrected before the forearm will rotate freely after healing. We summed up past lessons and experience and, drawing inspiration from the traditional orthopaedists' methods of reducing fractures of both bones of the forearm, concluded that rotation was the essential feature of the forearm, and that of the four types of deformity the principal one was rotational. Once this principal deformity was corrected, the other types were readily handled. Instead of open reduction, traditional orthopaedists had employed a unique "bone separation" method of reducing fractures of both bones of the forearm. Their method consisted of applying pressure on the posterior surface of the forearm in such a manner as to force apart the in-drawn fractured bones, then inserting a

roll of paper about the thickness of a cigarette between the radius and ulna and binding on two small splints. This procedure achieved good alignment of the fractured bones. The roll of paper between the bones acted as a "separating pad" and, fixed in position by the splints, effectively controlled rotational movement detrimental to fracture healing. The patient's elbow and wrist joints were freely movable, and after several weeks, when the fracture healed, limb function was restored as well. The fact that by this simple method we solved problems which often attended more complicated techniques clearly demonstrated the advantages of combining Chinese and Western medicine.

Fractures of the ankle bones are the most common among joint fractures. Of these, trimalleolar fractures (of the medial, lateral and posterior malleoli) are especially difficult to reduce and immobilize. Our practice had been to operate and fix the broken bones in place with steel screws. Although good repositioning was achieved, joint function was in most cases less than satisfactory. Now we use a combined Chinese-Western treatment for this type of fracture, manual reduction being followed by the application of splints to immobilize the medial and lateral malleoli. A special stocking provides suspension and traction, the weight of the limb itself serving to maintain the posterior malleolus in position. The patient is encouraged to do functional exercises, the effect of which is to utilize the self-moulding action of the astragalus in the mortise, which restores a smooth joint surface to the medial, lateral and posterior malleoli. Spasmodic contraction and hardening of the joints and surrounding ligaments is also averted, permitting satisfactory fracture healing and functional recovery.

Among the most difficult fractures to deal with are intercondylar fractures of the humerus. Plaster casts, traction and surgery are all ineffectual, and some doctors will make no attempt to treat this sort of fracture. A city hospital nurse on a medical tour in the countryside fell from her bicycle into a ditch and sustained a comminuted fracture of the right elbow joint and triple fracture of the ulna. We reduced the fractures under anaesthesia, bound splints to both the upper and lower arm and applied traction to the elbow. The patient performed elbow flexion exercises throughout the period of treatment, in this way employing the undamaged superior joint surface of the ulna to mould the shattered inferior end of the humerus. A smooth joint surface resulted, and joint function and external appearance of the limb were both restored to normal.

On another occasion, a rural barefoot doctor was crushed when a wall of the house he was repairing collapsed. He sustained dislocation of the right hip joint, fragmentation of the acetabulum, and multiple and comminuted fracture of the femur with severe displacement. Emergency treatment was given for two days locally, where it was feared that even if retained, the leg would be crippled. On the third day the patient was admitted to our hospital. The injured limb was severely deformed, the skin purplish-black in colour. Blood transfusions and fluid replacement stabilized the patient's condition, whereupon we reduced the dislocated hip under anaesthesia by combined traditional Chinese and Western methods. Since it was impossible to reduce the splintered acetabulum, splints were employed and skeletal traction applied at the tuberosity of the tibia. The patient was encouraged to start exercising at an early stage of treatment, and as he

moved about, the broken fragments of the femur gradually repositioned themselves and the splintered acetabulum regained its smoothness under the moulding action of the head of the femur. Traction was discontinued after six weeks, and with splint immobilization the patient began to get about on crutches. The fracture was firmly healed eighty days after the accident. Equal limb length and essential restitution of knee and hip joint function were achieved. It was with considerable emotion that the patient declared: "I never imagined that my fracture would heal so quickly and so well. When the traditional-style doctors said that reduction by manipulation was impossible, and the Western-style doctors decided against operating, I thought I'd end up crippled for life. My leg was saved by the combined Chinese-Western method. I've made up my mind to do as Chairman Mao says, to study traditional Chinese medicine, follow the path of combining Chinese and Western medicine, and use combined medical methods to benefit the broad masses of poor and lower-middle peasants."

Continued Progress

Since the Great Proletarian Cultural Revolution and the movement to criticize Lin Biao and Confucius, Chairman Mao's revolutionary line for health work has gone still deeper into people's hearts, and the work of combining Chinese and Western medical methods has progressed further. Guided by the new principles for fracture treatment, we have continually improved our treatment of commonly seen fresh fractures of the extremities. At the same time we have made new achievements in the man-

agement of old fractures, open fractures and fractures of the spine.

Old fractures are classified as of three types: deformed union, delayed union and non-union. In the past we generally resorted to surgery for treatment in such cases. The patients suffered, the surgery was complicated and, more serious, the therapeutic results were uncertain. Was it feasible to treat old fractures non-surgically, by combined Chinese-Western methods? We were given a cue by a peasant carter who had fractured his thigh-bone when his horse shied and overturned the cart. Poor management had resulted in deformed healing of the bone. Three months later he sustained another injury and the bone parted again at the point of fracture, turning the old fracture into a fresh one. We treated the fracture as a fresh one. The bone healed quickly, the deformity was corrected and joint function proved satisfactory. Upon leaving the hospital the carter remarked: "Breaking my leg a second time was a bad thing that was turned into something really good!"

Sometime later we admitted a patient with a comminuted upper section of the tibia. The fracture had refused to unite after two and a half years of treatment in his home-town, and he was referred to our hospital for surgery. Examination disclosed an inadequate callus at the fractured bone ends with some hardening and abnormal mobility, but no pseudo-arthritis as yet. The bone ends were apparently still capable of joining. We removed the plaster cast and replaced it with splints, then had the patient walk about with crutches, prescribing suitable weight-bearing. In addition, cod-liver oil and bone-building pills were administered by mouth. Within a month the callus was growing, and in less than three the frac-

ture had healed. The stiffened joints largely recovered their function and the patient returned to work, feeling very happy.

Such actual experience in treatment taught us that we should grasp the law of the opposing aspects of a contradiction transforming themselves into each other and treat old fractures by converting them into new ones. Chairman Mao pointed out that **"in given conditions, each of the two contradictory aspects transforms itself into its opposite."** Improper early management of a fresh fracture will transform it into an old one. We reversed the process by creating the requisite conditions, transforming old fractures back into new ones, and treating them as such. Surgery had failed to achieve the results we obtained. A 28-year-old seaman with a fractured shaft of the left femur had undergone four operations abroad, three times having steel plates affixed. The steel plates bent and the screws came loose, some of them breaking off inside the bone. The fourth operation had been performed to extract the plates and screws. At each operation a section of the hardened bone ends had been excised, and now the leg was 4.5 cm. shorter. The fracture refused to heal, forming a false joint, while a perfectly sound knee joint had been fixed rigid in a plaster cast and become unusable. On the seaman's return to China, we treated him with combined Chinese-Western methods. Within three months the fracture had basically healed and the delighted patient was discharged.

The spinal column is the supporting pillar and centre of equilibrium of the human body. Inept treatment of spinal fractures may result in kyphos and pain in the back and lumbar region. There is debate both in China and

other countries on how best to treat spinal fractures. The orthodox Western approach consists of rapid forcible reduction by external mechanical means, followed by prolonged immobilization in a plaster jacket. This method causes the patient considerable discomfort and is concerned solely with treating the fractured bones to the neglect of the role of the muscles and other soft tissues. Moreover, the reduced fracture may again become compressed within the plaster jacket, leaving a hump deformity along with chronic back and lumbar pains. Some Western practitioners have pointed out these shortcomings and gone to the other extreme. Instead of reducing and immobilizing the fracture they merely order bed rest for the patient, plus functional exercises. This amounts to relinquishing treatment of the bone break and dealing with spinal fractures as with injuries to soft tissues. Such a course also is often followed by kyphosis and backache.

Since the Cultural Revolution, we have time and again studied the difficult problem of spinal fractures, our treatment of old fractures giving us a lead. Old fractures transformed into fresh fractures cannot however be reduced immediately; it is chiefly under traction and splint immobilization, with the patient actively performing functional exercises, that the fracture is gradually and automatically reduced. The orthodox Western method of forcible, rapid reduction and plaster-jacket immobilization relies, too, on tension of the anterior longitudinal ligament and annular ligament. We advanced the hypothesis that by having the patient actively perform functional exercises and utilizing the powerful tractive force of the back and lumbar muscles to hyperextend the spinal column, the above-mentioned ligaments would automatically tighten and gradually draw the compressed vertebrae apart so that

they rise again and become reduced. A poor peasant had an accident which crushed his back. Half of the second lumbar vertebra was flattened and the vertebral lamina behind it severed — a fracture of the unstable type. We explained to him the precise nature of his condition in order to relieve his anxiety and strengthen his confidence in recovery. Under the direction of medical personnel, he persevered in doing physical exercises. The flattened vertebra was completely restored to normal, the severed lamina joined, and the patient's back muscles became even stronger than before the injury. He was very soon restored to health.

During the past four years, in line with Chairman Mao's teaching that "**external causes are the condition of change and internal causes are the basis of change, and that external causes become operative through internal causes,**" we have had excellent results in applying this treatment to both stable and unstable types of spinal fractures in young and old patients, and even in cases of fracture dislocation complicated with partial paraplegia. This method is remarkable for its simplicity and sound therapeutic effect. It requires little or no apparatus or equipment, causes the patient little discomfort, and is safe. The patient receives instruction in exercise methods and, with perseverance, is able virtually to cure himself.

An effective means of dealing with fresh fractures of the open type is to close them by cleansing and suturing the wound under asepsis and then treating them as closed fractures. However, in the past when we used Western methods to treat old fractures of the open variety — particularly those involving massive loss of soft tissue, extensive fracture exposure, delayed treatment and wound contamination — it was not uncommon for infection of the

bone matter to set in despite all efforts to render the wound aseptic by rigorous disinfection, sterilization and isolation. Osteomyelitis developed, the wound did not heal and the fracture refused to join. Our inevitable answer was amputation. Some of our patients, however, rejected this answer and went to traditional Chinese practitioners for treatment with the result that the fracture joined, the wound healed and the limb was saved. No few object lessons taught us that deeper exploration into the treasure-house of Chinese medicine was a must if we expected to continue improving the combined Chinese-Western methods of treatment. Since the Cultural Revolution we have changed over to using traditional Chinese medicines in treating old open fractures. Superficially, it might appear that the traditional Chinese orthopaedist pays scant attention to "disinfection and isolation." In fact, he uses many kinds of medicines with manifold effects. Some eliminate decay, others promote tissue growth; some are pus-drawing or skin-generating. After changing over to Chinese medicaments, we found that granulation surfaces remained fresh, epidermis grew quickly and exposed bone matter rarely became infected. Osteomyelitis leading to non-union seldom occurred. We once admitted a young peasant whose left leg below the knee had been run over by a cart. There was extensive loss of soft tissue, exposing most of the tibia and fibula. After more than a month's treatment in another city he had been sent to us to see if amputation could be avoided. By that time the wound had become severely infected, the patient was running a high fever and the fractured bone ends moved about freely in the wound. Previously, we would also have amputated the limb in this condition. Now, however, employing combined Chinese-Western methods of treatment,

we first reduced the fracture and immobilized it. Chinese medicine was applied externally, while antibiotics were used internally for the body as a whole. The patient's temperature soon returned to normal and his appetite improved. The granulation surface in the wound quickly freshened; granulation also appeared on the bone, gradually enveloping the exposed bone matter, and the wound rapidly decreased in size. We changed over to splint immobilization and allowed the patient to walk about. Within five months the fracture had healed. As the patient left the hospital, he said: "The Party and Chairman Mao saved my leg. Back home, I'll work hard at production to show my gratitude to Chairman Mao and to thank you doctors and nurses."

Why are traditional Chinese medicines so effective? We conducted bacteria inhibition experiments and found that among the pyogenic bacteria commonly found in wounds, such as *staphylococcus aureus* and *bacillus pyocyaneus*, some were sensitive and others even hypersensitive to Chinese medicaments. Although these Chinese medicines are fairly effective antibiotics, their use is not to achieve absolute asepsis of the wound, but to inhibit intractable pathogenic bacteria. The presence of some non-pathogenic bacteria does not affect the healing of the wound. Many different types of bacteria enter the wound simultaneously, some mutually antipathetic and incompatible, others mutually dependent and congenial. The traditional orthopaedist, with his long clinical experience, dialectically employs his medicines according to the nature, odour and colour of the pus in the wound to alter the local conditions. He thus utilizes bacterial interaction to inhibit the growth and reproduction of pathogenic bacteria. The generation of certain "ichors" (exudations with-

in the wound and not the pus referred to by Western doctors) due to the presence of certain non-pathogenic bacteria is not harmful. These in fact act as a sort of nutrient to the wound, freshening granulation and promoting healing. After the application of Chinese medicaments, granulation has appeared on bone surfaces, while skin has been found to grow from the centre of the granulation area. These are unusual phenomena never observed when Western medicines are used, but consistent with the traditional Chinese orthopaedist's theory of "cultivating ichor to produce flesh." The whys and wherefores, in scientific terms, of these phenomena require further investigation.

Non-Surgical Cure of Acute Abdominal Diseases

WU HSIEN-CHUNG
Nankai Hospital, Tientsin

The term "acute abdominal diseases" (or, simply "the acute abdomen") generally refers to acute appendicitis, acute intestinal obstruction, acute perforated ulcer, acute cholecystitis (inflammation of the gall-bladder), cholelithiasis (gall-stones), and other such emergency disorders in the abdominal cavity. These conditions are usually marked by sudden onset, rapid progress, and acute abdominal pain. If not treated promptly, they may endanger the patient's life.

Although there has been some non-surgical treatment of the acute abdomen in Western medicine, Western-style doctors have always relied mainly on surgery. Admittedly, surgery is still demanded at present in some of these disorders, such as intestinal obstruction due to twisting. The removal by surgery of a local lesion such as an infected appendix may save the patient's life. Such surgery certainly represents medical advance. There are, however, negative aspects to surgical treatment, such as physical pain, danger to the patients' life, and the possibility of post-operative infection, complications, and intestinal adhesions.

A patient brought by ambulance to our emergency ward and diagnosed as suffering from acute appendicitis was admitted to hospital but not to the operating room. Assigned a hospital bed, he was given acupuncture treatment to relieve the pain. After an hour the patient fell asleep. Subsequently, he was given a daily dose of Chinese herbal medicine. After three days his symptoms had basically disappeared. He was discharged from hospital after one week.

How acute abdominal disorders such as acute appendicitis can be cured non-surgically is a long story.

Carrying On and Developing Ancient Traditions

China has a long history of knowledge and treatment of acute abdominal diseases. The acute abdomen is described in books starting with the great *Huang Ti Nei Ching (Yellow Emperor's Manual of Internal Medicine)*, which dates back two thousand years, the *Shang Han Tsa Ping Lun (A Treatise on Fevers)* by the famous doctor Chang Chung-ching of the Eastern Han Dynasty (A.D. 25-220), down to the *Yi Tsung Chin Chien (Golden Book of Medicine)*, published in the mid-eighteenth century. Certain of these medical books record specific prescriptions of which some are used clinically to this day.

According to the ancient medical works and the clinical experience of traditional Chinese doctors, the characteristics of the acute abdomen are: sudden onset, rapid development, abdominal distension and tightness, severe pain, digestive difficulty, and constipation. Acute abdominal disturbances occur mainly in the areas which traditional Chinese medicine calls the "six viscera": the stomach, the

large and small intestines, the gall bladder, the urinary bladder, etc. Since the primary functions of the "six viscera" are digestion and excretion, traditional medical texts say: "The function of the 'six hollow viscera' is to maintain free passage. When there is free passage, there is no pain. When passage is blocked, there is pain." Because the "six viscera" and the "five organs" (heart, liver, spleen, lung, and kidney) are complementary to one another, acute abdominal conditions may also lead to disorders of the "five organs," such as "stasis of the liver" and "obstruction of the spleen," which are also manifestations of "blocked passage." "Free passage" means that the organs are open at both ends, allowing inflow and outflow so as to maintain their normal physiological functions as defined in Chinese medicine. When certain parts of these organs are diseased, causing blockage, there will be pain. This produces the pathological phenomenon described in Chinese medicine: "When passage is blocked, there is pain."

The concept in Chinese medicine that "the function is to maintain free passage" makes sense. The stomach and intestinal tract are like tubes, and when a tube is blocked it doesn't work properly. Analysing the pathology of the acute abdomen from the point of view of modern medicine, we see three pathological phenomena in these cases: (1) Obstruction which causes retention in a certain organ. Intestinal obstruction, for example, causes constipation, which may lead to bacterial infection and poisoning. (2) Inflammation due to bacterial infection, which leads to distension and tightness, causing retention. (3) Obstruction of blood circulation, which is also "retention," or stasis. Thus, "when passage is blocked, there is pain," and pathological changes occur.

From the above we can see that Chinese and Western medicine hold a basically similar view of the acute abdomen. In methods of treatment, however, they differ completely. In most cases, Western medicine advocates the removal of the diseased part, whether of the stomach or intestine, combined with the use of antibiotics. This method deals with the disease primarily by external means and opposes the internal administration of laxatives. Chinese medicine, on the other hand, allows medicines to work inside the human body, using herbal brews to free the blocked passages. Among these are medicines for "freeing internal passages and purging away," which relieve constipation and allow the patient to eliminate the harmful substances retained. There are also those for "enlivening the blood and circulating vital energy," which improve the functioning of the organs and the circulation of the blood. Then there is the type called "fever-allaying and detoxifying," which attack bacteria and reduce inflammation. The three pathological phenomena described in Western medicine can be dealt with by an appropriate combination of these various types of traditional medicines.

In studying traditional Chinese medicine we doctors trained in Western practice, inspired by a strong desire to relieve the suffering of the workers, peasants, and soldiers, have searched hard for new, combined Chinese and Western methods in treating the acute abdomen. We felt that since traditional Chinese medicines could cure the patient while sparing him the suffering of surgery, we should carry on and develop this fine tradition of Chinese medicine, combine it with modern medical knowledge, and earnestly study it, supplement it, and improve it, to make it serve the people still better.

Acute appendicitis is one of the commonest of acute abdominal diseases. It brings immediately to mind such symptoms as severe pain in the lower right abdominal region, accompanied by nausea, vomiting, hot and cold flashes, etc. The annals of Chinese medicine include appendicitis among diseases called "intestinal ulcers," and give numerous prescriptions for treating such "ulcers."

By the latter half of the nineteenth century, medical practitioners in Western capitalist countries had gained relatively detailed knowledge of the acute abdomen. In Paris in 1902, the International Surgical Society laid down the principle that "as soon as a diagnosis of appendicitis is made, surgery should be undertaken immediately." Surgeons trained in Western medicine have relied for several decades on this principle in treating acute appendicitis. The discomfort and pain of surgery is the usual cause of people's fear of this disease.

Could we overcome this and treat acute appendicitis by non-surgical means? We asked ourselves this question.

After studying the traditions of Chinese medicine and current advanced experience from the country at large, we began to use traditional medicines clinically to treat acute appendicitis. We first selected several relatively light, uncomplicated cases and administered Chinese medicines. The results were good. Gradually we accumulated some experience in the combined use of Chinese and Western medicine in treating this disease and in fact overcame the old convention of relying mainly on surgery. This was a first step towards the establishment of a non-surgical treatment consisting of acupuncture to relieve pain, and administration of Chinese medicines internally

and externally as the main measures. At the same time, we divided the disease into three stages according to the degree of acuteness and used different prescriptions at each stage.

With the continued improvement of our treatment methods, the percentage of cases treated non-surgically has gradually risen. In the past two or three years we have been able to treat about 80 per cent of our acute appendicitis cases non-surgically.

In evolving a non-surgical treatment for acute appendicitis, we went through a process of **“practice, knowledge, again practice, and again knowledge.”** One patient with acute appendicitis not only failed to respond to treatment with acupuncture and Chinese medicine, but actually got worse. Abdominal muscle tension increased and the fever rose. Why? We operated on this patient immediately and discovered that blockage by fecal material had made the appendix gangrenous. There was acute suppuration, and the appendix had ruptured.

As the Chinese saying goes, “a fall into the pit, a gain in your wit.” On the basis of this lesson, we carefully summed up our experience and realized the iron-clad truth that each case must be analysed according to the specific situation. In treating the acute abdomen with a combination of Chinese and Western medicine, it is necessary to distinguish clearly according to the indications in each particular case between the surgical and non-surgical methods as the method of choice. It is bad, of course, to operate when surgery is unnecessary. It is also dangerous not to operate promptly when the patient's condition is aggravated and demands surgery. In cases such as the one described above, with acute suppuration and gangrenous appendix, surgery is definitely in order.

Because we have firmly held to the idea of “practice first,” and of learning and raising our level through practice, we managed to constantly develop and improve the “new thing” of treating the acute abdomen with a combination of Chinese and Western medicine.

Three Packets of Gall-Stones

One day a doctor in the “acute abdomen team” of our hospital received a letter in which were enclosed three packets of sand-type gall-stones. What was this all about?

It turned out that more than two months before, this particular doctor had seen two workers who were passing through Tientsin on their way to northeast China. They were on leave from their jobs in Paochi, Shensi Province, to visit their mother who was ill in Changchun, Kirin Province. The mother was suffering from abdominal pain and chills and fever, her eyes were jaundiced, and she was very feeble. The local doctor diagnosed her illness as acute cholecystitis and cholelithiasis, and urged her to undergo surgery. The patient's family hesitated, however, afraid she could not stand such an operation at her age and in her weak physical condition. These two workers were very worried. They had heard that our hospital had been treating the acute abdomen with a combination of Chinese and Western medicine, obviating surgery, for many years, and that we had published books on the subject. When they passed through Tientsin they came specially to our hospital to consult our “acute abdomen team,” hoping we could help them. The doctor who saw them questioned them carefully about their mother's medical history and current condition. He then wrote a

prescription of traditional Chinese medicines to "expel biliary calculus" for the patient.

The two workers were now writing to say that their mother had taken three doses of the prescribed medicine, and that after three days she had passed quite a few sand-type gall-stones. Her condition showed marked improvement. They had mailed some of the stones to us to show the effects of the medicine. In the accompanying letter the two workers lauded the brilliance of Chairman Mao's directive on "combining Chinese and Western medicine."

It is well known that choledochitis (bile-duct infection) and choledocholithiasis (stones in the main bile-duct) are diseases which Western medicine finds relatively difficult to diagnose and treat. Surgery alone often does not solve the problem thoroughly. Some patients are not completely cured even after repeated operations. Clinical physicians often call this "post-operative bile-duct syndrome," or "post-cholecystectomy syndrome." Surgeons trained in Western medicine consider these unsatisfactory results to be a knotty problem. We took its solution as one of the main focuses of our work.

On the basis of Chinese medical theory, we divided bile-duct infections into three categories: the "energy-retarding type," or relatively light cases; the "fever type," or slightly more serious cases or cases with jaundice; and the "high-fever type," or very serious cases. We administer different kinds of Chinese medicine according to these different categories of the disease, using a dialectical method of treatment. The medicine we give patients with choledocholithiasis has the effect of contracting the gall-bladder, promoting bile secretion, and controlling infection. After taking these kinds of medicines, a certain percentage of patients are able to expel gall-stones through

the digestive tract. Treatment with the medicines described above has proved somewhat effective in clinical practice. However, patients with severe complications and those with cholecystolithiasis (stones in the gall-bladder) are still usually operated on.

Complementary Combination of the Two Kinds of Medicine

According to the dialectical principle "one divides into two," everything has its two opposing aspects. As our treatment of the acute abdomen by combining Chinese and Western medicine got under way we realized more and more that each of the two kinds of medicine has its merits and drawbacks, that the only correct way is to adopt the strong points of each, combine the two by using the positive aspects of the one to balance out the negative aspects of the other according to the principle of **"making the past serve the present and foreign things serve China."**

In diagnosing the acute abdomen, e.g., doctors trained in Western medicine question the patient on symptoms and medical history, then do various physical examinations and tests, such as X-ray, and order chemical laboratory tests of blood, urine, body fluids, and so on. These measures tell them what sort of disorder has occurred in which part of the body. The ability to accurately determine local pathological changes is the advantage of Western medicine's method of diagnosis. Where it falls short, however, is in understanding and analysing the functioning of the patient's body as a whole. The doctor of Chinese medicine first gets a picture of the patient's condition through the four diagnostic techniques of "observing,

listening and smelling, inquiring, and pulse-feeling." Then he organizes the information he has gathered through these external observations and makes a systematic and dialectical analysis of the problem. In Chinese medicine this is called "interpreting the symptoms to determine treatment." So Chinese medicine has a more complete view of the various physiological functions and the pathological situation as a whole. Where it falls short is in accuracy in understanding the pathology of a specific part of the body. Combining Chinese and Western diagnostic methods allows each to make up for the other's inadequacies.

The way we generally combine Chinese and Western medicine in diagnosis is as follows: first, diagnosis using Western techniques, and performing various kinds of tests and examinations for the patient. Then, following the rules we have formulated through clinical experience, we choose between surgical and non-surgical treatment. Patients not to be operated on undergo further diagnostic measures according to the Chinese medical method of "interpreting the symptoms to determine treatment" for a more comprehensive analysis of the body's over-all functioning. Finally, these two diagnoses are combined to form a relatively accurate, comprehensive conclusion. We don't mean to say here that a doctor of Chinese medicine makes a diagnosis separately after a doctor of Western medicine has examined the patient. We mean that one doctor can carry out diagnosis and treatment by combining the two kinds of medicine, because many of our doctors trained in Western medicine have learned Chinese diagnostic theory and technique, and have mastered those aspects of Chinese medical knowledge which are relevant to the acute abdomen.



Internal administration of Chinese herb medicine and acupuncture with electric stimulation are effective in the treatment of acute abdominal conditions without surgical intervention.



Administering traditional Chinese medicine by gastric tube for a patient with intestinal obstruction.

Examining Chinese medicinal substances in injection form for use in acute abdominal diseases.





Studying the effect on a guinea-pig of the injection-form Chinese medicine for "enlivening the blood and clearing clogging."

Because we have a relatively clear idea of the patient's specific disorder and his over-all physical condition, we are able to apply effective measures of both Chinese and Western medicine according to the specifics of each case. Therapeutic effects tend to be more satisfactory this way. For example, in a normal acute appendicitis case treated non-surgically, all we usually do is give acupuncture treatment to stop the pain, and administer herbal medicine internally. But if the situation is complicated by peritonitis, then we also apply infusions and Chinese medicine externally, to reduce the inflammation, and even apply decompression of the gastro-intestinal tract. Of course these measures are not applied rigidly and mechanically — we vary the treatment according to the seriousness of the condition and the patient's general health.

In pharmacology, integrating Chinese and Western medicine means using Chinese medicines and Western medicines in combination in order to improve therapeutic effects. Our doctors now have in their heads a good number of standard prescriptions which are a combination of the two kinds of medicine. We have gone through a process of steady improvement through practice in the use of Chinese medicines. "Recipes" for Chinese medicines are rather complicated, as each one contains many different kinds of medicinal material, and the amount of each material required varies a great deal. Sometimes the amount of each kind of material called for in a given "recipe" will vary according to the patient's general physical strength and the changes in his condition. At first, we used only one "recipe" in each case. Some patients vomited the medicine repeatedly, or the effects in some cases were minimal. Later, we began prescrib-

ing various "recipes" for each case, and switching to another kind if the first was not ideal. But this way the results were not stable either. Finally, through studying what the traditional Chinese medical works have to say about prescribing and using medicines according to an analysis of the causes and mechanisms of a disease, and summarizing our own clinical experience, we arrived at eight common ways of using "dialectical treatment" to deal with the acute abdomen. These methods are "unblocking internal passages and purging away," "heat-relieving and detoxifying," "circulating vital energy and enlivening the blood," and so on. The methods are widely applicable and easy to use and remember. Use of medicines according to these eight principles has generally proved quite effective.

On the basis of medical works and our own clinical experience, we have made some general rules governing the use of surgical or non-surgical treatment in the various types of the acute abdomen. This is very helpful in treating patients promptly and effectively. On the whole, the percentage of patients treated non-surgically has risen greatly, but this does not mean we never operate — we decide according to the specifics of each case. Everything we do is to lessen the patient's suffering and protect the people's health. Sometimes, when pathological changes occur in the internal organs, or when the situation is critical, it is necessary to operate immediately. Sometimes we come across a special type of patient who doesn't respond well to treatment involving only one of the two methods, in which case we use both side by side. Take, for example, patients suffering from choledocholithiasis who have a narrow lower bile duct, and especially those with complicated hepatico-

cholelithiasis and sand-type stones. When these patients are treated with Chinese medicines only, the problem of bile-duct obstruction is not solved, and the stones cannot be expelled. But it is also difficult to thoroughly eliminate the stones by surgery alone. In these cases we operate first to expand the lower bile duct and, after a period of time, use herbal medicine to expel the stones. This method of treatment is smoother, and the cure is more assured.

To sum up, since we have started combining Chinese and Western medicine, we understand the acute abdomen better, and have at hand a richer selection of diagnostic, therapeutic, and patient-care techniques. We are thus able to draw fully on the advantages of both Chinese traditional and Western-style medicine, and treat patients faster, better, and more economically.

Can a Perforated Ulcer Be Treated Non-Surgically?

One of our patients was a young worker who had suffered from duodenal ulcer for several years and had frequent abdominal pain. People urged him to see a doctor sooner rather than later but, absorbed in his work for building socialism, he kept putting off treatment and went on working in spite of his illness. On night shift one winter night in 1973, this young man suddenly felt unusually sharp pains in his abdomen, so severe that he broke out in a cold sweat. His hands and feet turned cold and his abdomen was rigid. The factory leadership and the young worker's comrades brought him immediately to our hospital, where he was examined by X-ray and given various laboratory tests. The diagnosis was

acute perforated ulcer. We admitted him to hospital, but he was very worried that we would do a gastrectomy, which might incapacitate him for work. An old worker in the same ward said to him: "Don't worry, lad, they don't do many operations in this hospital. They mostly treat people with a combination of Chinese and Western medicine. I had a perforated ulcer too. I've only been here three days and the pain's gone. I'm much better already."

We gave this young worker acupuncture treatment against pain, Chinese medicine and infusions. The abdominal pain disappeared gradually. We then treated his ulcer. The patient recovered and was discharged from hospital after seven days. We have checked on his condition during the year since his hospital stay and found no recurrence of the ulcer.

We have done a long-term follow-up study on a group of perforated ulcer patients cured without surgery, with the results that in 55.9 per cent the symptoms disappeared entirely; in 31.4 per cent there were occasional recurrences of symptoms, which however were controlled with medicines; only 12.7 per cent of the patients had relatively serious symptomatic recurrences requiring long-term administration of medicine, or surgery.

The acute perforated ulcer is a serious condition in which gastric juice and duodenal fluid enter the abdominal cavity. This severe irritant to the abdominal cavity gives rise initially to chemical peritonitis, and subsequently to bacterial peritonitis. If not treated promptly, but rather allowed to develop, this condition can lead to septic shock, and can even be fatal. With very few exceptions, doctors trained in Western medicine believe that surgery — either suturing the perforation

or removing a large part of the stomach — is imperative. Therefore some people say that "perforated ulcer is an absolute indication for surgery." In other words, that surgery is the only possible means of saving the life of such a patient.

Through years of practical clinical experience in combining Chinese and Western medicine, we have been searching for new ways of treating perforated ulcer. After much practical experimentation, we have finally arrived at a non-surgical method of treatment. It is simple and therapeutically effective, the patient suffers little, complications are few, and the mortality rate is low. Selection of patients suited for this kind of treatment must be made on the basis of indications, and those not suited to it must still have surgery.

Non-surgical treatment of perforated ulcer is one of the important results of our efforts to combine Chinese and Western medicine. As with our other achievements, it has come out of our study of *On Practice, On Contradiction*, and other philosophical works of Chairman Mao.

At first, we were so influenced by the idealistic notion of "the unknowable," that we had little faith or confidence in a non-surgical approach to this disease which was said to be an "absolute indication for surgery." For example, when we admitted a patient with perforated ulcer, because we did not know the size of the perforation or the extent of exudation, we opened up the abdominal cavity. After studying *On Practice*, we understood that there is nothing in this world that is unknowable, only things we don't know yet. If we experience, analyse, and study it, anything is knowable. It would seem that the size of a perforation and the extent of exudation are unknowable since they cannot be

seen through the skin. Actually, this is not so. We collected about a hundred records of patients with perforated ulcer and carefully analysed and compared them case by case, using modern medical knowledge and Chinese medicine's theory of "interpreting the symptoms to determine treatment." In this way we eventually established the relationship between the size of perforation and extent of exudation on the one hand, and body temperature, blood pressure, pulse, and other bodily indicators on the other. We also visited the hospital wards and made detailed investigations among patients with perforated ulcer. Through investigation, analysis and study, we systematized the major symptoms and characteristics in these cases as they relate to size of perforation and extent of exudation.

Through this process of experimentation, we determined the indications for non-surgical treatment, gastrectomy, and simple suturing. Practice has shown that this division into categories is scientific. Patients chosen for non-surgical treatment have all been cured. In those few cases where surgery was necessary, large perforations and heavy exudation were in fact found, and the surgery was successful.

In the past, Western medicine had emphasized the pathology of the affected organ and stressed the effects of external treatment. It was believed, in other words, that removal of the affected organ would obviate the trouble, and, therefore, perforated ulcer patients must undergo gastrectomy. But this view, which stresses external factors over internal ones, is one-sided. External factors are the conditions for change, whereas internal factors are the basis for change — external factors play their role only through internal ones. When an ulcer

is perforated, the condition of aggravating peritonitis does exist. But the human body has the ability within itself to fight disease, and the perforation can heal itself through adhesion, encasement, etc. Exudation into the abdominal cavity can also be dissipated naturally through absorption by the peritoneum. Therefore, acupuncture, traditional Chinese and Western medicines, and other such external factors to strengthen the body's internal ability to fight disease are all conducive to curing perforations without excising the stomach. In this light, we concluded that we cannot lay stress on the affected part and external factors only, but must pay attention to the functioning of the patient's body as a whole and the human body's inherent resistance to disease. This is the guiding principle of non-surgical treatment.

Further, it is necessary to delve deeply into the condition and grasp the rules governing its development and changes. This is the fundamental viewpoint guiding the whole process of treating the acute abdomen. The patient's condition is not fixed — it changes and develops according to various factors. At each stage of its development there is a main contradiction which plays a determining role. Taking effective measures against this main contradiction will improve the patient's condition. For example, in treating perforated ulcer non-surgically, we divide the development of the condition into three stages according to the pathological changes, and take different therapeutic measures against the main contradiction at each stage. The first stage is from perforation to closing of the perforation, when the main contradiction is abdominal pain and the exudation of gastric matter. We use acupuncture to relieve the pain and aid closure of the perforation, and decompression of the

gastro-intestinal tract to lessen exudation of gastric matter. The second stage follows closure of the perforation, when the main contradiction is hastening the absorption of exudated matter and preventing the development of abscesses in the abdominal cavity. At this stage we use traditional Chinese medicines of the "heat-relieving and detoxifying" and "unblocking internal passages and flushing away" types. During the third stage, after the exudated matter has been absorbed, the ulcer itself becomes the main contradiction, and now we use Chinese and Western medicines in a concentrated effort to cure the ulcer once and for all.

Taking the Offensive

A main feature of the acute abdomen is its "acute-ness"—its sudden and violent onset. Treatment, therefore, necessitates taking various and prompt measures of both Chinese and Western medicine. In other words, we must "concentrate a superior force" and take the offensive against the disease. Only in this way can we gain the initiative in "thoroughly defeating the enemy." Our experience in treating acute intestinal obstruction brought us the greatest clarity on this point.

There had been a relatively high death rate among patients with acute intestinal obstruction. In recent years, doctors trained in Western medicine have done much research on this disease and have made considerable progress, particularly in the field of pathological physiology, and the death rate from this disease has declined. But, in treatment, surgery remained the main method. Only a small number of patients with very

mild symptoms were treated by decompression of the gastro-intestinal tract, etc., while waiting for the obstruction to clear up naturally.

We have had good results in treatment with a combination of Chinese and Western medicine, and are able to treat approximately 60 per cent of our patients non-surgically. The main contradiction in this condition is to relieve the obstruction. We therefore concentrate our forces to relieve the blockage in the intestinal tract. Decompression of the gastro-intestinal tract is first used to clear the digestive tract and create favourable conditions for administration of traditional Chinese medicine. We then give infusions to compensate for dehydration and strengthen the physiological functioning of the patient's body as a whole. To prevent vomiting, we give atropine by injection. After the situation is controlled, we administer large doses of traditional medicine within a very short space of time for "unblocking internal passages and flushing away." When the effect of the medicine is at its peak, we give an enema of Chinese medicine or soap-suds to help the patient eliminate fecal matter and gas. The intestinal obstruction clears up very quickly. Because forces are concentrated, this form of over-all treatment is quick and successful in a high percentage of cases.

On one occasion a doctor from our hospital, who went to another city to take part in a group consultation on a patient, found an old worker who had been operated on for ulcer and had developed post-operative intestinal obstruction. Ten days later the patient underwent further surgery, but was still obstructed. His condition was critical and the pain intense. Our surgeon arrived for consultation after a decision had been made that he should

undergo a third operation. The surgeon made a detailed investigation of the patient's condition, gave him a comprehensive examination, and analysed the situation together with the other doctors. Their conclusion was that the patient's intestinal obstruction was of a complicated nature and it was a problem of both adhesion and function, but as there was still no tendency towards twisting of the intestine, he could be treated without further surgery. He was given medicine by gastric tube and an enema of traditional medicine at the same time. Three hours later he had a bowel movement, and that night three more. The obstruction had been cleared. The old worker said with deep feeling: "It is Chairman Mao's great directive on combining Chinese and Western medicine that has saved my life."

Using an effective combination of Chinese and Western methods has become a rule in our non-surgical treatment of the acute abdomen. We have discovered through clinical experience that some medicines are more effective only when a combination of the two kinds is used. For example, traditional medicines for "unblocking internal passages and flushing away" are generally used in intestinal obstruction cases. But when the patient's intestinal tract is blocked, he immediately vomits any medicine administered. In that case we first give an injection of atropine to control the counter-peristaltic movement of the intestines and prevent vomiting, after which we administer Chinese medicines, which then yield the desired results.

What is interesting is that in this process the traditional Chinese medicine requires peristaltic movement to clear the obstruction, while atropine prevents peristalsis. These two kinds of medicine are apparently mutually

contradictory. Actually, they complement each other. Experiments on animals have proved that the traditional medicine acts directly on the diseased part of the intestine, speeding peristalsis in this section. And this action is not affected by atropine, which depresses reverse peristalsis in unaffected parts of the intestine, preventing vomiting. Using the two kinds of medicine in proper combination, the effects of preventing vomiting and rapidly freeing the obstruction are achieved simultaneously.

Sometimes, in order to improve results, we give traditional medicine as supplementary treatment to surgery. For example, we still remove the diseased part of the intestine in patients with obstruction where there is intestinal necrosis. In the past, these patients often developed paralytic intestinal obstruction post-surgically, which made treatment very difficult. Now, we administer traditional medicine by gastric tube on the first post-operative day to increase peristalsis, a measure which prevents intestinal paralysis.

Everything for the People

Looking back over our experience of more than a decade of work in combining Chinese and Western medicine, we realize that the achievements we have made have been a result of studying and applying Marxism-Leninism-Mao Tsetung Thought in connection with objective reality, and most important of all, in connection with our own ideological situation, and with constantly transforming our world outlook.

When we first began our study of Chinese medicine, because of the influence of the revisionist line in health

work pushed by Liu Shao-chi and his like, bolstered by the influence of old force of habit, a small number of medical workers had all kinds of theories in their heads. There was the idea that "there's nothing worth learning in Chinese medicine," that "you lose more than you gain in studying Chinese medicine," the idea that "surgery is an exception," that "people have always taken medicine for internal problems and undergone surgery for external ones," and so on. When treatment of the acute abdomen with a combination of Chinese and Western medicine emerged as a new thing, there were still ideological hurdles to surmount. Some people doubted the effectiveness of traditional medicine and the traditional method of treatment; some were worried it would mean putting down the scalpels they had become so skilled at wielding. Some were afraid of the responsibility they would have to bear if they were unable to cure the patients, while others felt that the theory and medicinal recipes in Chinese medicine are too complicated and hard to learn, and were afraid that they wouldn't be able to learn them very well, that in the meantime their knowledge of Western medicine would get rusty. In short, there were those who hesitated to go forward on the road to combining Chinese and Western medicine.

Given this situation, the Party organization led us in studying *Serve the People*, *In Memory of Norman Bethune* and other works by Chairman Mao. We realized through study that all these ideas in our minds boiled down to a question of whether or not we were willing to serve the people heart and soul. One of the doctors said: "Why should I insist on operating when the patient doesn't want surgery? Why don't I apply myself to learning Chinese medicine when it's clear that

the patients like treatment by the combination method? Why am I unwilling to try these simple, economical and effective new methods? In a word, it's selfishness in work. I've been thinking only of my personal interests and not of the patients' suffering."

This doctor is right! Chairman Mao taught us health workers to "**heal the wounded, rescue the dying, practise revolutionary humanitarianism.**" We should do as Chairman Mao said, always keep the patients' good in mind, and serve the people wholeheartedly. After we clarified our thinking in this way, everyone began to carry out Chairman Mao's revolutionary line in health work even more conscientiously, considerably promoting the work of combining Chinese and Western medicine.

Since the beginning of the Great Proletarian Cultural Revolution and the movement to criticize Lin Piao and Confucius, we have gone outside the four walls of the hospital to the countryside in mobile medical teams, and have received re-education by the poor and lower-middle peasants, which has raised our consciousness a step higher. We are very happy to see the peasants enthusiastically welcoming combination treatment methods, and we not only use these methods ourselves, but have begun to popularize them among rural medical workers as well.

One of our doctors was rather slow in grasping the idea, and was not very enthusiastic about combining Chinese and Western medicine. When he was in the countryside on a medical tour, a patient with appendicitis came in for treatment. The doctor was alone at the time. Unable to operate on his own, and afraid of delaying treatment long enough to send the patient to the hospital, he had no choice but to prescribe traditional Chinese med-

icine. The patient soon improved and came to thank him profusely, while the doctor felt rather awkward. Later, he cured a patient with bile-duct infection by using traditional medicine. Actual practice taught him a lesson, and once he realized the superiority of the combination of Chinese and Western medicine he cured many patients with acute abdomen during his two months' stay in the countryside. When he came back to the hospital he plunged energetically into this work.

Practice has shown that once doctors come to identify themselves with the workers, peasants and soldiers, a firm ideological base is established for the work of combining Chinese and Western medicine to treat the acute abdomen, which enables us to make steady progress. Of course, what progress we have made so far is only the first step in a very long march. The tasks ahead are numerous and more difficult. But, we will go forward in this field provided we conscientiously apply ourselves to the study of Marxism-Leninism-Mao Tsetung Thought, adhere firmly to the path of combining Chinese and Western medicine, have the revolutionary spirit of daring to be creative and a solid scientific approach, provided we intensify our study of theory, modestly learn from advanced experience at home and abroad, further explore the treasure-house of Chinese medicine and learn from the masses' experience in treating disease.

New Treatment of Cataract

SHEN TEH-CHU
Department of Ophthalmology,
Kuanganmen Hospital, Peking

We medical workers of the department of ophthalmology have used combined Chinese and Western surgery in clinical practice and scientific research in the treatment of cataract. In so doing, we have firmly followed the road of combining Chinese and Western medicine pointed out for us by Chairman Mao. The number of patients we have treated by such methods exceeds five thousand, and quite satisfactory results have been obtained. These results were gained because we have consistently adhered to Chairman Mao's teachings and devoted ourselves to rediscovering and systematizing China's medical heritage and improving it through the application of modern scientific methods.

Extraction and Couching of Cataract

Cataract is a common eye disease to which elderly people are especially prone. It occurs in the lens, a crystalline tissue inside the eye, when this tissue ex-

periences certain metabolic disorders, or when it is attacked by bacterial toxins or subjected to trauma or prolonged irritation by strong radiation, such as infra-red rays and ultra-violet rays, with the result that the transparent tissue becomes partially or completely opaque, seriously hindering vision.

Cataracts are classified as senile, congenital, complicated and so forth, depending upon their pathogenic causes. However, there is no genuinely efficacious treatment of cataract, irrespective of type, by medication or other non-surgical means. The usual procedure, once the lens becomes completely opacified, is to extract the non-transparent body, or couch (depress) it within the eye by surgical means, and then fit the patient with high-power convex lenses to compensate for the removed lens (somewhat like changing lenses on a photographic camera), which enables the patient to see.

The method of extraction employed to date by practitioners of Western eye surgery consists of making a semicircular incision along the limbus (periphery) of the cornea, extracting the cataract and then suturing the wound. This type of operation, though effective, frequently causes pupil distortion. Furthermore, it is relatively complicated, requires meticulous post-operative care and has proved to be less than satisfactory in cases where the cataract is relatively transparent or is luxated (dislocated) due to trauma. It is also difficult to perform under the conditions generally existing in rural and mountain districts.

Practitioners of traditional Chinese medicine employ the "chin chen po chang shu" or "gold needle couching" technique in the treatment of cataract, a surgical procedure recorded in medical works as early as the Tang

Dynasty (618-907). In his treatise *Wai Tai Mi Yao (Essentials of Medicine)*, for instance, Wang Tao displays a very great knowledge of the clinical symptoms of common senile cataracts, and dwells upon "embryonic cataract" and "shock cataract," the former corresponding to what Western doctors call "congenital cataract" and the latter to "traumatic cataract." *Mu Ching Ta Cheng* or *The Most Complete Eye-Book*, written in the 17th century by Huang Ting-ching, reduces the "gold needle couching" technique to eight surgical steps under the general heading "Eight Methods," and deals in the main with the pre-operative, operative and post-operative aspects of the couching operation. The above-mentioned historical data all belong to the rich store of practical experience amassed in the treasure-house of traditional Chinese medicine.

Owing to limitations of historical conditions, however, traditional Chinese methods of treatment remained separated from modern scientific knowledge. The decades before liberation, in particular, witnessed the disparagement of China's medical heritage and the wanton despoliation and stifling of Chinese medicine by the reactionary ruling classes, with the result that the "gold needle couching" method was used by only a few practitioners in isolated areas and was on the verge of extinction.

Since liberation, with the concern and stress placed on rediscovering and systematizing China's medical legacy by the Chinese Communist Party and Chairman Mao, this work has taken on a new aspect. We ophthalmologists, like medical workers all over the country, have participated in this work, and "gold needle couching" has been given new life.

The Struggle Between Two Ways of Thinking

A struggle between two ways of thinking has permeated our research and practice of the "gold needle couching" technique. Basing themselves on foreign literature and data, some at first maintained that the incision site in couching was a "danger zone" vulnerable to sympathetic ophthalmia, glaucoma, or other inflammations which may lead to blindness. These people also asserted that since couching does not remove the cataract but merely pushes it down into the vitreous chamber where it remains in the eye as an irritating "foreign body," the operated eye would again lose its visual function in two or three years. This type of operation was therefore regarded with doubt and distrust.

Since it was believed that couching had poor therapeutic effect, was fraught with dangerous aftereffects, and since there was the alternative of the Western practitioners' method of extraction, the Chinese traditional method of couching should be abandoned. This view was in fact widespread and had many adherents until we acquired clinical experience in the couching technique.

We maintained that the attitude of historical materialism should be taken towards couching. The method as it was handed down had its shortcomings, that was true. The use of cold water douching of the eye instead of anaesthesia, for example, as well as a disregard for asepsis, called for improvement by the application of modern scientific methods. Still, we felt that couching was well worth reviving, with its history of more than a thousand years, its simple technique and the fact that it was the ideal operation for binocularly blind elderly people in poor health for whom extraction was infeasible.

Moreover, couching had certain advantages over extraction: It was less dependent on material conditions and could be performed *in situ* in the countryside, outside of hospitals. Surveys conducted after liberation on efficacy of couching showed that some patients' vision was still good nearly thirty years after operation. Such data provided us with material for research.

Chairman Mao taught us: **"The truth of any knowledge or theory is determined not by subjective feelings, but by objective results in social practice. Only social practice can be the criterion of truth."** We took the doubts about couching as problems to be solved, delved into the literature and conducted intensive investigations in the course of clinical research.

The Ideal Incision

The first problem to be solved in research on combining Chinese and Western cataract surgery was that of the incision, and the controversy focused here. Traditional Chinese physicians had written fairly exhaustively on the location of the incision, which was in modern medical terminology four to five-mm. outside the limbus corneae in the vicinity of the outer canthus, and corresponding to the flat region of the ciliary body. Doctors of Western medicine, however, had tabooed the ciliary body, saying it was a "danger zone" or "forbidden zone" due to its proneness to sympathetic ophthalmia. We proceeded to analyse the ciliary body and found that it consisted of two regions, the protuberant and the flat, the former being profusely supplied with blood vessels and nerves while the latter had relatively few. We be-

lieved that the traditional Chinese physicians' choice of the flat region as the incision site, a practice of more than a thousand years, was unquestionably based on abundant clinical experience, and that the relative paucity of nerves and blood vessels not being clearly given as the reason for this choice was attributable solely to the restrictions placed on scientific development at the time. We saw this as precisely the problem we should solve with the aid of modern science. After repeated experiments on animals having confirmed our theory, we applied it in clinical practice and were able to demonstrate that the method of making the incision on the flat region of the ciliary body had certain advantages.

Not only was the incidence of hemorrhage low; reactive inflammation was also light. A contributing factor was our execution of a sharp, clean incision under strict asepsis. In clinical practice we repeatedly came across patients who for one reason or another required a second operation. In these cases it was possible, within a certain period after the first operation, to utilize the original incision with no hemorrhaging and little post-operative reaction. In situations where contusion or laceration was present owing to blunt blades or other causes, however, hemorrhaging was likely to occur, sometimes even recurrently, and reactive inflammation was severe. In the course of follow-up observations on 360 eyes operated on in our hospital, no sympathetic ophthalmia was discovered.

Due to the selection of the ciliary body as the location of the incision in certain removals of magnetic and non-magnetic foreign bodies from the eye, operations for hard-to-remove foreign bodies are now simpler and show good results. Experience has proved that this couching

incision obviates a number of shortcomings attendant upon the corneal incision, such as iris prolapse, updrawn pupil, slow restoration of the anterior chamber, down-growth of the epithelium and other complications. It possesses the further advantages of small incision, round pupil after operation, good sight correction and low degree of astigmatism.

Glaucoma Control

Although the problem of incision was now solved, the incidence of glaucoma (i.e. ocular hypertension) following couching was considerably higher than with extraction. This was another key problem that confronted us in treating cataract by combined traditional Chinese and Western surgery.

The general belief in the past had been that couching tended to cause glaucoma as a result of the cataract being depressed into the vitreous chamber; that the incidence of this type of glaucoma was therefore inevitably high and its prevention impossible, that in case it occurred, it was controllable only by the removal of the cataract from the vitreous, an extremely difficult and dangerous operation. This belief raised the question of post-operative secondary glaucoma as the chief objection of many to the couching method, and exploration of the laws governing the occurrence of glaucoma and working out of effective preventive measures became urgent.

Chairman Mao taught us: **"In this world, things are complicated and are decided by many factors. We should look at problems from different aspects, not from just one."** Although the incidence of glaucoma in the initial

stages of couching research reached as high as 11 per cent, we also took note of the other aspect of the matter, i.e., that in the other 89 per cent of the patients undergoing the couching operation glaucoma did not occur despite the fact that the cataract likewise remained in the vitreous chamber. From this we realized that post-operative secondary glaucoma was not inevitable, and that the depression of the cataract into the vitreous chamber was merely a phenomenon that was not necessarily essential to the occurrence of glaucoma. As to the laws governing secondary glaucoma, more clinical research and analyses of both positive and negative experience were necessary before any conclusions could be drawn.

At first, due to our lack of knowledge of this particular type of glaucoma as well as to its close clinical resemblance to acute hemorrhagic glaucoma, we followed the general rules for glaucoma treatment as outlined in medical literature and employed the routine therapy which consisted in the main of myosis, or pupil contraction. The administration of myotics, however, aggravated the glaucoma symptoms. On the other hand, in the case of certain patients upon whom mydriasis (pupil expansion) and iridectomy (iris excision) were performed, the glaucoma was brought under control and removal of the depressed cataract from the vitreous was entirely unnecessary. These facts initially negated the theory that secondary glaucoma was caused by the depressed cataract. Moreover, the discovery of a means to control secondary glaucoma heightened confidence in our research on the couching method.

Members of our department spent days and nights at patients' bedsides checking intraocular pressure variations, conducted exhaustive pre-operative examinations

and analysed much data and material. After a period of painstaking observation and study, drawing lessons from failure and experience from success, we gradually gained understanding of the primary reason for secondary glaucoma occurring after couching. If the hyaloid membrane behind and below the pupil is accidentally ruptured during the couching operation, aqueous humour will escape into the vitreous chamber and cause swelling of the vitreous body, which in turn will bulge back into the pupil area, mushrooming through the pupil into the anterior chamber and obstructing normal interflow of fluid between the anterior and posterior chambers. This increases intraocular tension and is observed clinically as secondary glaucoma.

Based on this, we advanced the hypothesis that first rupturing the hyaloid membrane in the region of the pupil and then couching the lens might lower the incidence of glaucoma, and this was what in fact happened. Secondary glaucoma incidence dropped from 11 per cent to less than 1 per cent, proving that depression of the cataract into the vitreous chamber was not the pathogenic factor involved in secondary glaucoma. The question of glaucoma was now solved.

In order better to discharge responsibility towards its patients, our hospital has instituted a follow-up outpatient system according to which all persons who have undergone eye surgery in our hospital report on Monday afternoons for check-ups, optometric tests and eye-glass fittings.

In April 1966, the Ministry of Public Health held a conference to assess the results of cataract couching. Representative oculists and experts throughout the country were invited to participate in study and discussions,

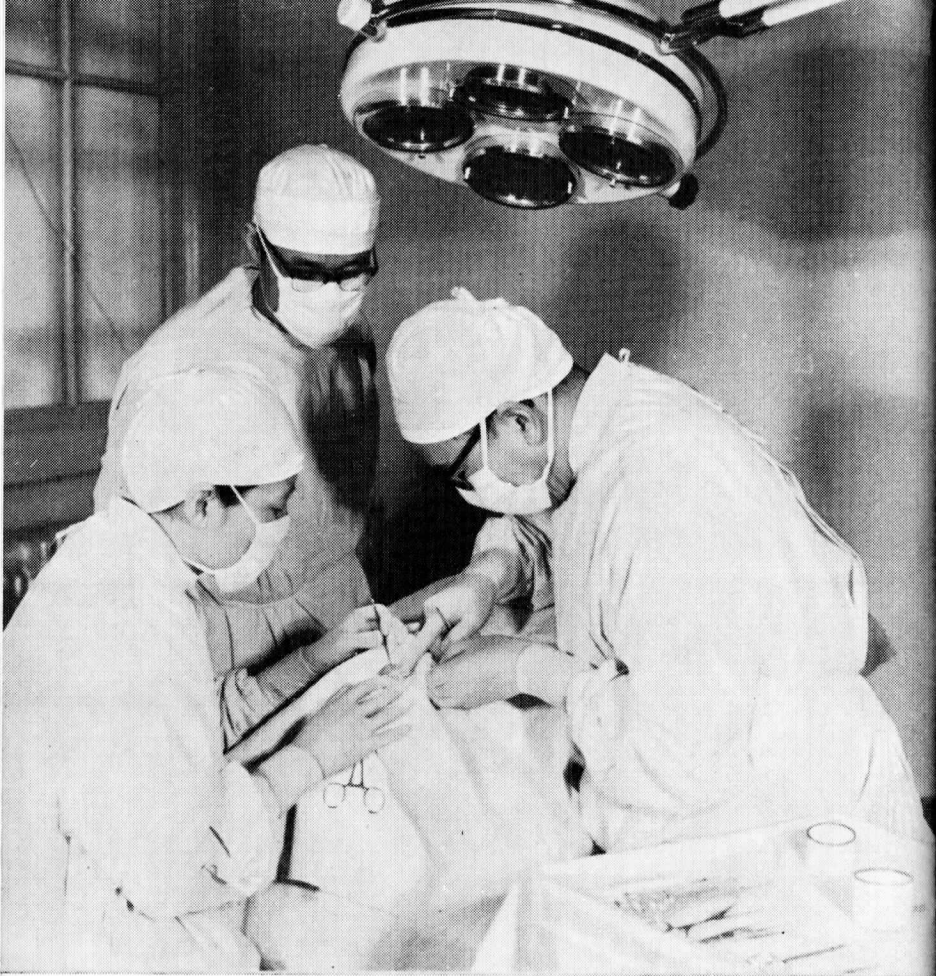
and to conduct follow-up examinations of an at-large selection of patients previously operated upon, some as long as six or more years before. Eyesight correction after couching was found to be highly satisfactory, with 78.16 per cent of the patients showing visual acuity restored to 1.0 or higher after a fairly prolonged period. These results were unanimously acclaimed by the conference participants.

From Couching to Snaring

Heartening results had by now been attained in research on couching, and the operation won the approval of the workers, peasants and soldiers. Yet certain problems remained. One was that the range of application of this operation was relatively limited, i.e., it was suitable only for senile cataract. In some cases, the cataract remaining in the eye after couching tended to impair the patients' upper field of vision. In other cases, particularly where the zonule (suspensory ligament) was completely ruptured and the cataract had settled in the back of the vitreous chamber, or where too much of the zonule was retained so that the cataract swung like a valvular flap, there was partial obstruction of the pupil and both visual acuity and field of vision were affected. Further surgical intervention was necessary in a few cases. Also, the depressed cataract tended to shift around with changes in body position in patients suffering from liquefaction of the vitreous. Now that the couching operation had reached a degree of relative maturity, we thought of the possibility of overcoming its shortcomings while retaining its advantages, more specifically, the possibility of removing

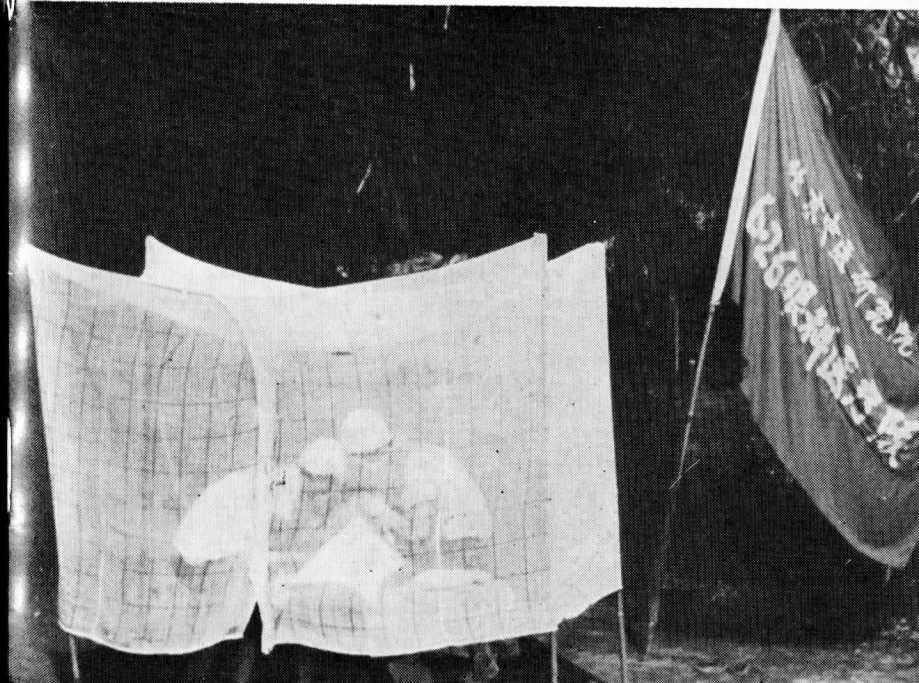


Checking the eyes of fishermen for disease.



Couching operations for cataract have restored vision to thousands of sufferers.

A mobile medical team performs a couching operation in a mountain village.





Chou Chen-lung and his three sisters have recovered their sight after couching operations for congenital cataract. *Inset:* The children before operation.

the couched cataract via a small incision. This method would more closely approach the ideal solution, and the comrades engaged in this work devoted much time and effort towards its realization.

In the winter of 1968 a young electrician suffered a sub-luxated (partially dislocated) lens with secondary glaucoma following a traumatic injury. The hospitals in Peking to which he went for treatment decided that the lens should be extracted to solve the problem of glaucoma, and he was referred to us for possible couching.

Examination at our hospital revealed the sub-luxated lens with, however, partial preservation of the zonule. In view of the patient's youth we considered couching not the operation of choice, because 1. the zonule would not be easy to sever, 2. once the zonule was entirely severed, the lightweight lens of a young person would be difficult to depress and would tend to float up. Bearing these facts in mind, we decided to adopt an alternative plan which was still in the theoretical stage but which we had been contemplating using for some time, i.e., the removal of the luxated lens via the couching incision sector.

The lens, however, measured approximately 9×5 mm. If it were removed through the couching incision region, the incision would have to be widened to 14 or 15 mm. which could cause massive loss of the vitreous and give rise to serious complications. The best solution was to remove the lens through a smaller incision.

The comrades of the ophthalmological department, after tempering in the Great Proletarian Cultural Revolution, pooled efforts, ideas and suggestions in the common endeavour to save the young worker's eyesight so that he could return to his work place to continue in revolution and production. All agreed that the first question to solve

before attempting the operation was that of surgical instrumentation. Undismayed by our lack of technical knowledge and equipment, we put our heads together and after much designing and remodelling finally came up with a snare-like appliance with which we succeeded in removing the young electrician's damaged lens via the couching incision region. His post-operative corrected vision reached 1.0. Re-examination in 1974, nearly six years later, showed a long-term efficacy of 1.2. This experience provided the cataract-snaring operation with a rudimentary precedent and gave us pointers for improving the operation.

We recognized that the key to further developing the snaring technique lay in the question of instrumentation. Meanwhile, this new technique gained encouragement and support from the Ministry of Public Health and the Chinese Medical Research Academy upon whose suggestion we sought the assistance of the Soochow Medical Instruments Factory in Kiangsu Province. There, we joined the workers in experimenting on the manufacture of the new appliances. After three months of repeated trials, during which we had the full co-operation and support of the factory leadership and the workers, we finally turned out the first occluding cataract-snaring instruments of a size that could pass through small incisions. The head of the instrument was of complex structure, consisting of a latex rubber net which could be opened and shut at will by means of a switch. We also made a cataract pulverizer, the function of which was to reduce the cataract into fragments small enough to remove through a narrow incision. This was a successful instance of a three-in-one combination of leadership, workers and doctors in the manufacture of optical instruments.

By repeatedly applying our theories to practice, revising, summing up and improving, we gradually developed a complete operational procedure for what we called the "cataract couching-snaring operation." This provisional set of techniques covers anaesthesia, incision, couching, snare insertion, pulverizing snare withdrawal, suturing and post-operative nursing. Patients for whom this procedure is employed are generally able to walk back to the ward unassisted, and a skilled practitioner usually requires only twenty minutes to complete a monocular operation.

Starting in 1969, our department sent several specialized ophthalmological teams in succession to rural and mountain districts in the Kwangsi Chuang Autonomous Region, with a programme of activities ranging from scientific research to medical treatment and teaching. Their work consisted of popularizing the couching operation and at the same time of dispensing treatment using the couching-snaring method and conducting research on it. In January 1974 we re-examined all patients in Peiliu County, Kwangsi, who had undergone the couching-snaring operation, our medical workers visiting each commune and brigade and bringing their service into each patient's home. Corrected vision with acuity ratings of between 1.0 and 1.5 were found in 79.8 per cent of the patients in this follow-up examination, all with post-operative terms of three years and four months or more. Apart from the figures cited, the full measure of this success was shown by the general approval voiced by the poor and lower-middle peasants for this new operation.

The couching-snaring operation was another step forward on the basis of the improved couching method. Efficacy was higher and range of application broadened.

Senile-cataract sufferers, for instance, were no longer obliged to wait until the cataract matured to have their operation. The couching-snaring operation was also applicable in certain forms of congenital, traumatic and complicated cataract, as well as in luxated lens cases. And so, a new method combining Chinese and Western surgical techniques was added to the repertory of cataract surgery.

Medical Service for Still More Sufferers

After the couching-snaring operation proved successful, importance was attached to it by the Ministry of Public Health. In 1971 and 1972 respectively, the Chinese Medical Research Academy and the Fukien Provincial Health Bureau were twice entrusted with the sponsoring of a "National Symposium on the Couching and Couching-Snaring Operations for Cataract," with the aim of perfecting and popularizing this new operation. At these gatherings of oculists from every province and city in the country, a major item on the agenda, apart from research and discussion, was spending a period of time in the countryside to give medical treatment to the broad masses of poor and lower-middle peasants. We spent a total of six months in four counties of Fukien Province during our two sojourns there and performed more than three thousand operations, restoring vision to cataract sufferers who had been denied treatment as a consequence of Liu Shao-chi's counter-revolutionary revisionist line. Through study and practice, the Symposium was instrumental in popularizing the new operation throughout the country by making treatment available to sufferers in the vast rural and mountain areas.

Among our patients were Chou Chen-lung and his three sisters, members of Tzuni People's Commune in Lunghai County. Their father suffered from congenital cataract before liberation and, after many years of blindness, died, leaving five children. Of these, all except the eldest son had congenital cataracts and were unable either to work or go to school. After doctors treated them with the couching-snaring operation, they were able to see. Now, at our follow-up examination two years later, we found Chou Chen-lung, the second son, skilled in farming and busy with the spring sowing. The third in the family, a girl, was now married, while the two younger girls were in school. Their mother said with deep feeling: "Chairman Mao takes care of us poor and lower-middle peasants. He saved our family and gave my children eyesight. Chairman Mao's revolutionary line is our life-line, our happiness line."

When an octogenarian Chinese who had returned from overseas to Nanan County heard that doctors of the Symposium had arrived and were treating cataracts, he asked his family to take him to us. We performed a couching-snaring operation for him, and when he again beheld the beautiful mountains and rivers of his motherland, his praises were loud and fervent for Chairman Mao's revolutionary line and the good days it had brought.

To sum up, we have assimilated the best points of Western-style cataract surgery while retaining the good features of the Chinese couching method (i.e. incision position, lens depression, etc.) in the creation of a combined Chinese-Western operation technique. We invented a new surgical appliance, the cataract couching-snaring instrument, and developed to an initial stage a new surgical procedure. We have also obtained comparatively satis-

factory results in clinical practice, and we feel that our endeavours have begun a new line of surgery for the treatment of cataracts.

However, the period of clinical observation of this new surgical technique is still short, certain methods and instruments require further improvement, and continued attention must be paid to long-term follow-up checks. These are matters on which we are now directing our efforts.

在创造中国新医药学的道路上

李经纬 蔡景峰 尚天裕

吴咸中 沈德础著

·
外文出版社出版(北京)

1977年(32开)第一版

编号: (英)14050-24

00050

14-E-1419P

Distributed by:
NEW ERA BOOKS
203 SEVEN SISTERS ROAD
LONDON N.4
TEL: (01) 272 5894

