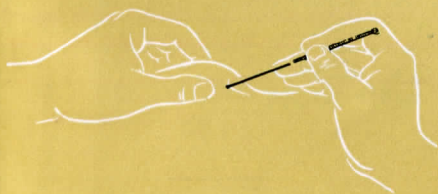
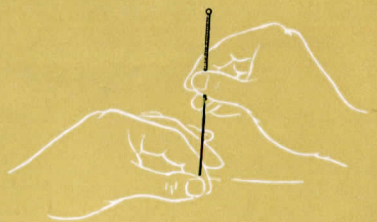


The Story of Chinese Acupuncture and Moxibustion

By Fu Wei-kang



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Chinese acupuncture
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Publisher's note

Acupuncture and moxibustion are therapeutic methods characteristic in traditional Chinese medicine. They have a recorded history of more than 2,000 years.

This booklet elucidates vividly and concisely the beginnings and development of these methods. It also describes how Chinese medical workers, following Chairman Mao's teachings, explore the legacy of Chinese medicine and achieve new breakthroughs in this branch of medical science. One of these, acupuncture anaesthesia, is dealt with in Chapter 7.

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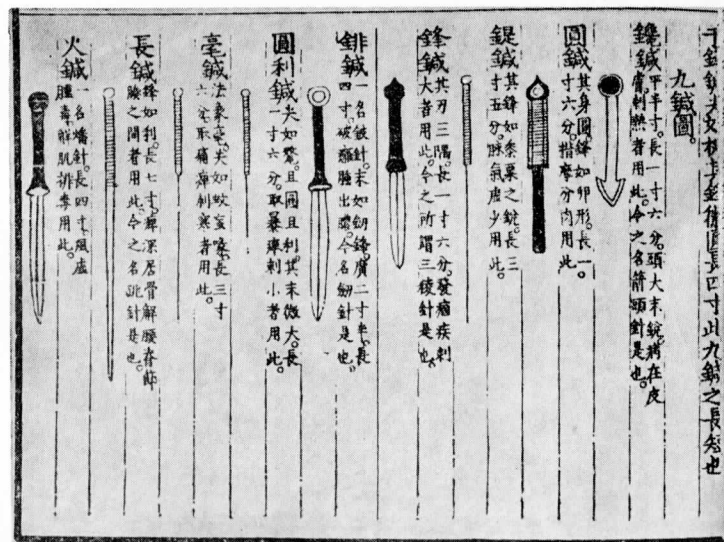
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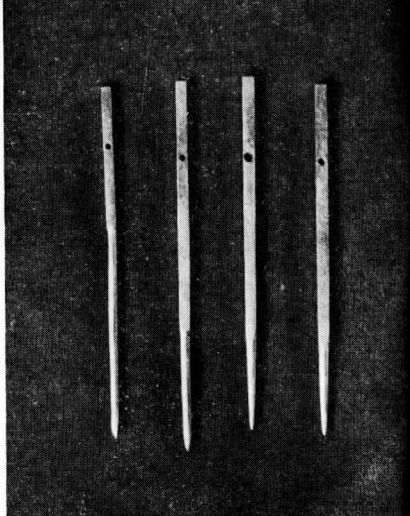
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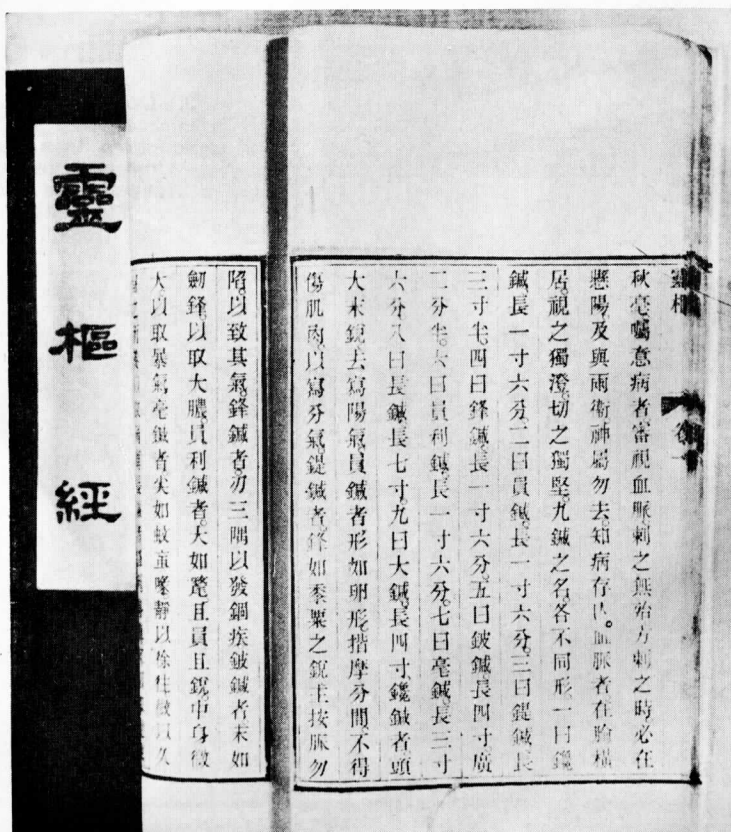
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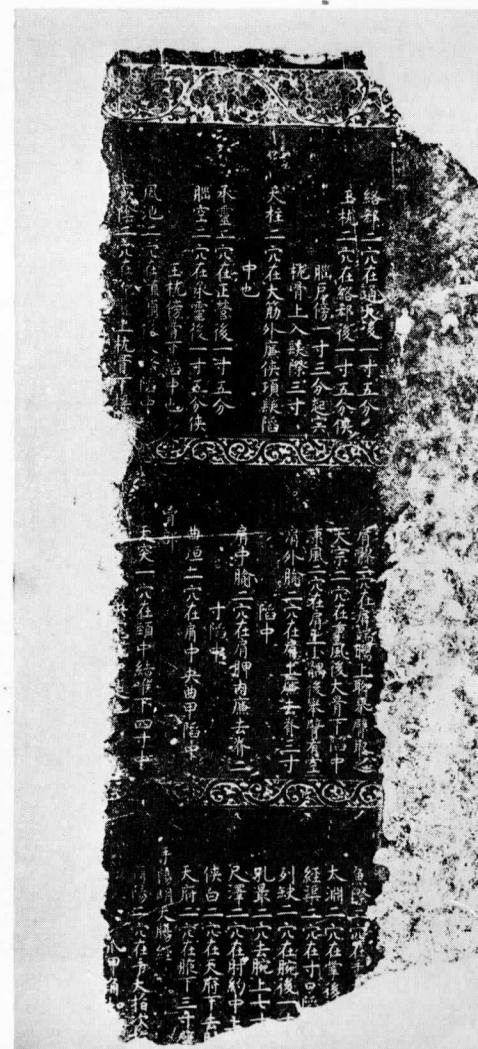
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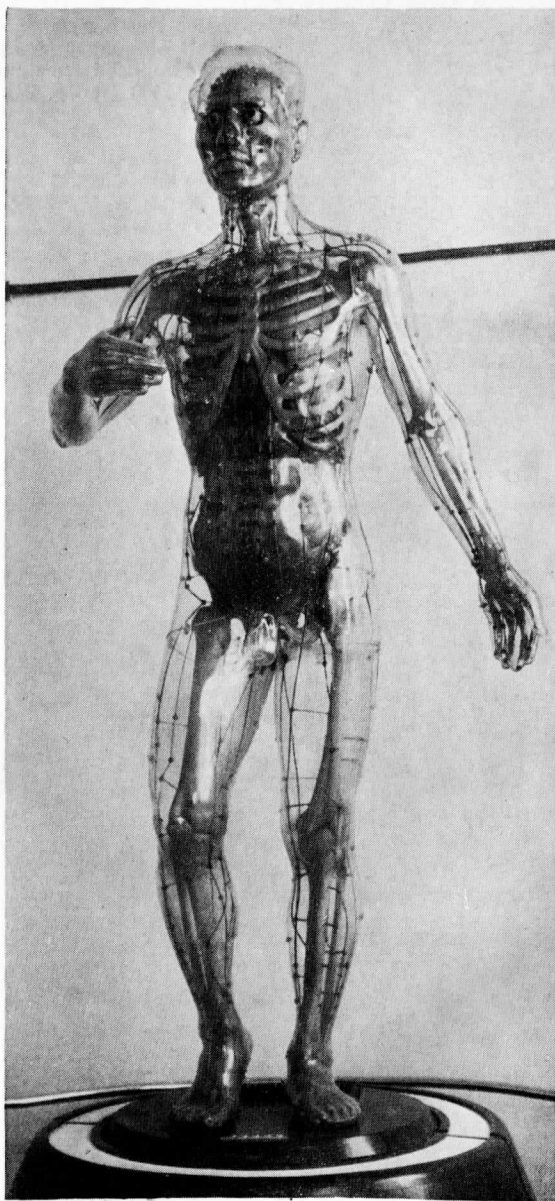


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Foreword

"Chinese medicine and pharmacology are a great treasure-house, and efforts should be made to explore them and raise them to a higher level." This is a teaching of our great leader Chairman Mao. China's traditional medicine embodies the fine achievements which the Chinese working people have accumulated over the centuries in the course of productive labour and medical practice. In this treasure-house are valuable experience and rich theoretical knowledge that have contributed greatly to the growth and prosperity of the Chinese nation, as well as to world-wide medical knowledge.

The special methods of Chinese acupuncture and moxibustion, with their multiple advantages, have been handed down from ancient times and improved through the generations. After the founding of the People's Republic of China this branch of medical science came under the guidance of Chairman Mao's revolutionary line in health work and has since made spectacular progress, bringing new results in the service of the people. The uninter-

rupted advance in the methods is an outgrowth of the Chinese people's wisdom and creative ability developed through practice.

How acupuncture and moxibustion became associated

Acupuncture, as a therapeutic method distinct from moxibustion, treats disease by puncturing at certain points on the body with metal needles and inducing stimulation by various manipulation methods. The sensations produced may be numbness, distention or heaviness.

The therapeutic effect of moxibustion is produced by the heat of slowly burning moxa-wool sticks held near the diseased area or acupuncture point, or moxa-cones placed directly on or above the area. Moxa-wool is the shredded dried leaves of Chinese wormwood.

Though acupuncture and moxibustion are two different methods, both are applied to points selected on the basis of the Chinese theory of the channels and collaterals. From ancient times the two methods have often been used in co-ordination. The *Huangdi Nei Jing*¹ (*The Yellow Emperor's Canon of Medicine*), now entitled simply *Nei Jing* (*Canon of Medicine*) (Fig. 1), compiled during the Warring States Period (475-221 B.C.), states: "Moxibustion

may be applied when and where acupuncture alone proves ineffective," giving the rationale for the long-term juxtaposition of the two.

¹《黄帝内经》.

Historical background

Acupuncture and moxibustion relieve many diseases and are methods of choice in some, over administering medicine. The earliest success with these methods is recorded in *Shi Ji*¹ (*Historical Records*) by Szuma Chien,² a historian of the Han Dynasty (206 B.C.-A.D. 220). An account is given in "Biographies of Pien Chueh and Tsang Kung"³ of how Pien Chueh, a renowned doctor, brought a patient out of coma by applying acupuncture needles.

Pien Chueh, whose real name was Chin Yueh-jen,⁴ was born in Mochou,⁵ Pohai Prefecture,⁶ in what is now Hopei Province. He summed up his forerunners' medical experience and set forth four diagnostic methods still used today: (1) by noting the patient's spirit, facial colour, posture and tongue coating; (2) by listening to body sounds and smelling body odours; (3) by asking the patient questions, and (4) by palpation, i.e., feeling the pulse and pressing the affected points. Pien Chueh was said to have been well versed in the various branches of medicine and skilful both in prescribing drugs and in applying acupuncture, massage and herbal fomentations, among

other cures. The name "Pien Chueh" was that of a famous legendary doctor in the more obscure past, and its being given to Chin Yueh-jen indicates the prestige also of the latter.

Pien Chueh began after middle-age to travel widely, performing his cures of common and endemic diseases among the people. Arriving in the state of Kuo⁷ (an ancient state in the 11th century B.C., in present-day Honan and Shensi provinces) with his two apprentices Tzu Yang and Tzu Pao, he heard that the prince of Kuo had suddenly lost consciousness that morning. Sudden death was suspected. To clarify the case, Pien Chueh hurried with his apprentices to the palace, where funeral preparations were under way for the prince. Pien Chueh inquired into the onset of the illness and attendant circumstances, then carefully examined the patient. Respiration was present though shallow, and the inner aspects of the thighs were warm. Pien Chueh diagnosed coma and instructed Tzu Yang to administer acupuncture. Presently the prince came round and the doctor asked Tzu Pao to apply herbal fomentations to both armpits. The prince was soon able to sit up in bed. Pien Chueh next prescribed medicinal-herb drinks for 20 days, and the prince completely recovered.

The capital city was astir with the story, many even crediting the cure to Pien Chueh's "supernatural power to resurrect the dead." The doctor denied this, explaining that he had merely restored a living man to consciousness.

This incident recorded in history over 2,000 years ago is an early demonstration of the efficacy of acupuncture and moxibustion.

Another historian, Fan Yeh⁸ (398-446) of the state of Sung in the period of the Southern and Northern Dynasties recorded in his work *History of the Later Han Dynasty*⁹ several episodes concerning acupuncturists of the Han Dynasty. One doctor of the Eastern (Later) Han Dynasty (25-220), known as "Fu the Elder"¹⁰ from the name of the river in which he fished for a living, popularized acupuncture and moxibustion, became well known as a doctor and passed on his knowledge and skill to others.

"Biography of Hua To," a section of the same book, records the use by Hua To¹¹ of a herbal anaesthetizing agent, *mafusan*,¹² in an abdominal operation. This was the first such instance. Hua To, according to the biography, was skilled not only in medicine and surgery, but in acupuncture and moxibustion as well. He often achieved the desired effect by puncturing no more than one or two well selected points. The biography tells how Hua To treated Tsao Tsao¹³ (155-220), statesman, strategist and poet of the Three Kingdoms period (220-280), who it is said suffered from persistent headache, or what perhaps would be diagnosed today as neuralgia. When all else failed to give relief, Tsao Tsao called in Hua To, who cured him by applying acupuncture.

These accounts of the successful use of acupuncture and moxibustion by Pien Chueh, "Fu the Elder" and Hua To furnish clues to the Chinese people's mastery of the methods and show that impressive results had been obtained as early as the time between the Spring and Autumn Period and the Han Dynasty.

¹《史记》. ²司马迁. ³《扁鹊仓公列传》. ⁴秦越人. ⁵鄆州. ⁶渤海郡.
⁷虢国. ⁸范晔. ⁹《后汉书》. ¹⁰“涪翁”. ¹¹华佗. ¹²麻沸散. ¹³曹操.

Beginnings and growth

All progress and achievement in science are born of man's persistent labour and continuous practice; all result from a never ending process of developing from the realm of necessity to the realm of freedom. The advancement of the sciences, furthermore, is strongly influenced by social, economic, political and cultural factors. The historical development of acupuncture and moxibustion shows the maturing of these skills to be no exception. They were the accomplishment of the Chinese people in their long struggle against disease.

It was many centuries before the Chinese people discovered these methods and applied them effectively. By chance, perhaps, people noted alleviation of pain or disease following a bruise or wound on the skin; aching or other discomfort was relieved by massaging or knocking the affected area. When people had summed up a series of such experiences, they sought to rid themselves of ills by massaging, knocking, patting or pricking the site of the discomfort. And so acupuncture began. The

localities that responded to such treatment gradually evolved into a system of acupuncture points.

According to historical records, the earliest needles to be used were of stone. They are described as *bian shi*¹ (stone piercer), *chan shi*² (stone borer), or *zhen shi*³ (stone needle). In *Historical Records* appears an ancient legend about a doctor named Yu Fu⁴ who treated patients with stone needles. In *Shan Hai Jing*⁵ (*Book of Mountains and Seas*), a work on geography written over 2,000 years ago, a passage reads: "In the Kaoshih Mountains are rich deposits of jade underlaid with *zhen shi*," the latter referring to stone suitable for making needles. In *Canon of Medicine* is written: "In the eastern region . . . all abscesses are best treated with *bian shi*," meaning to use a small sharp-edged stone flake or needle to prick, press or puncture certain points on the human body. These ancient stone *bian*, *chan* or *zhen* were the most primitive puncturing instruments.

In the Paleolithic Age, man lived on wild cereals and fruit and engaged in fishing and hunting with crude stone tools. But among these were also sharp-edged small flakes for shallow puncturing or incision of the skin surface to drain pus. By Neolithic times man already engaged in farming and animal husbandry and dwelt in permanent settlements. His tools, sharpened by rubbing with abrasives or by grinding, provided material conditions for the use of stone needles for curative purposes. But needles of bone or bamboo had meanwhile appeared. With the making of pottery, the "earthenware needle" was introduced. This was simply a bit of broken earthenware used for superficial pricking at certain points on the

body. This ancient method remained in use in certain parts of the country for some time even after liberation.

In the wake of social advance and the invention of metallurgy in China, needles made of various metals came on the scene. Although no metal puncturing needles have been found among the relics of the Shang and Chou dynasties (16th-8th century B.C.), the discovery of a great variety of bronze articles from that period, including sacrificial vessels, knives, arrowheads, etc., of fine workmanship, indicates a fairly advanced bronze metallurgy, with the probable existence of bronze acupuncture needles. Succeeding dynasties saw the development of metallurgy in iron, silver and certain alloys, and the coming into use of acupuncture needles of these materials. Modern needles of stainless steel are far more refined and easier to manipulate.

As experience in acupuncture grew, needle specifications became more exacting. The use of metal, which answered this requirement, brought acupuncture to a new stage as evidenced by the ancient "nine needles"⁶ (Fig. 2). Serving different therapeutic purposes, their emergence marked an early definite advance in acupuncture theory and technique.

The "nine needles" are:

The arrowhead needle⁷ for superficial pricking.

The round needle⁸ for massaging.

The blunt needle⁹ for knocking or pressing.

The sharp three-edged needle¹⁰ for venous pricking.

The sword-like needle¹¹ for evacuating pus.

The sharp round needle¹² for rapid pricking.

The filiform needle¹³ (the most extensively used).

The long needle¹⁴ for puncturing thick muscle.

The large needle¹⁵ for treating arthritis (or painful joints in general).

In 1968 at Hsiling Mountain in Mancheng County, Hopei Province, was excavated the Western Han Dynasty tomb of Liu Sheng¹⁶ (Prince Ching of Chungshan)¹⁷ and his wife, dating from the 2nd century B.C. Among the finds are nine acupuncture needles, four of gold (Fig. 3), five of silver. This was the first discovery of ancient metal puncturing needles. The gold needles remain to this day in good condition, while those of silver had corroded badly. The handles of the gold needles are angular with a small perforation in each. Two are of the filiform type; one has a three-edged tip; the fourth looks like the blunt needle. This discovery furnishes valuable material for research concerning the ancient "nine needles" and the development of acupuncture. It also fixes Chinese acupuncture as dating back several thousand years in history.

Some types among the "nine needles" have fallen into disuse. Those most commonly used today are an improved form of the ancient filiform needle, while the three-edged needle¹⁸ used in venous pricking is practically the same as its ancient counterpart.

The introduction of fire into man's life provided conditions for the invention of moxibustion. The origin of cauterization therapy can be traced to the discovery by ancient man that certain disease symptoms disappeared

after warming around a bonfire. Others were alleviated by an accidental burn on the skin. These incidences gradually led to the deliberate application of cauterization therapy, though other materials than moxa (*Artemisia vulgaris*) were used in the beginning. Dry leaves and twigs probably came first, followed by charcoal, chopsticks, moxa, sulphur, realgar, rush, etc., with moxa the most popular.

Later, after long experience in the healing art, the Chinese working people not only adopted moxa as the cauterizing material of choice, but came to the conclusion that moxa that had been stored for a few years was more effective than new. A treatise of the Warring States Period says: "In treating a disease seven years old, use three-year-old moxa," indicating the use of seasoned moxa in stubborn cases. It is evident from this that moxibustion was in common use for treating diseases over 2,000 years ago.

The ignited seasoned moxa produces a mild, even and steady heat which penetrates the muscle. The effectiveness of moxa is frequently mentioned in medical books of different ages. One such instance appeared in the *Ben Cao Gang Mu*¹⁹ (*Materia Medica*) compiled by the distinguished medical scientist Li Shih-chen²⁰ (1518-93). It says that cauterizing with moxa has the effect of "driving away cold and damp." Burning dried moxa leaves against mosquitoes, or throwing ground moxa leaves into a cesspool or latrine as insecticide has been a common practice from ancient times. The aroma given off by burning moxa has been determined by modern science to be due to the volatile oil content in its leaves, which is effective against certain disease-producing bacteria.

In the beginning direct moxibustion was applied, which was administered by placing a moxa-cone directly over the point on the skin. The moxa-cone is generally about half the size of a date stone, the smallest being the size of a wheat grain. There are two methods: the scarring, in which the skin is burned to form blisters and ulcers, with scars remaining; and the non-scarring method. The pain and unsightly scars caused by the former have largely discredited the method.

Various indirect moxibustion methods have evolved, some using ginger, garlic, salt, or medicament-paste placed between the skin and the ignited moxa-cone. The therapeutic effect is different for each material. Moxibustion with ginger is indicated in vomiting, diarrhea of the "cold" type, arthritis, etc. With salt, it is mainly used in emergency cases such as coma and acute abdominal pain. The slice of ginger or garlic, or the medicament-paste, is about 1/3 to 1/2 inch thick, with holes punched in it. Indirect moxibustion produces the same therapeutic effect without blistering and scarring and is therefore extensively used.

Another method, known as "moxibustion with warm needle," calls for a piece of moxa-wool wrapped around the needle handle and burned while the needle is retained in place. The method has the simultaneous curative effects of both the retained needle and of moxibustion.

After long practice the method of using moxa-stick has come down into contemporary times. The stick is made by rolling the moxa-wool firmly in soft paper and shaping it like a large-size cigarette. In application, the ignited

stick is held over the acupuncture point, the duration and intensity of the heat being controlled to produce the desired effect at the point.

The discovery of points and the concept of channels and collaterals

In acupuncture, a point¹ means a specific spot on the body surface at which needling or moxibustion is applied to evoke a certain reaction in certain regions or viscera so as to produce therapeutic effects. The theory of the channels and collaterals² in Chinese traditional medicine maintains that all points are capable of both reflecting functional changes of the viscera on the body surface and passing sensations from the body surface to the viscera. Ancient Chinese works use such terms as *kong xue*³ (converging spot) or *shu xue*⁴ (transmitting spot), etc. The term "stimulation point" is also used in our time, but all mean the same thing.

At first there was no definite location on the body surface for applying acupuncture, nor were there any given names for the spots needed. The acupuncture points later established were not discovered all at once but one by one in the course of the development of acupuncture and moxibustion. In the embryonic stage of acupuncture, long and repeated practice confirmed that massage,

¹砭石. ²燔石. ³箴石. ⁴俞跗. ⁵《山海经》. ⁶“九针”. ⁷鑿针. ⁸圆针. ⁹鍤针. ¹⁰锋针. ¹¹铍针. ¹²圆利针. ¹³毫针. ¹⁴长针. ¹⁵大针.
¹⁶刘胜. ¹⁷中山靖王. ¹⁸三棱针. ¹⁹《本草纲目》. ²⁰李时珍.

puncture, pressing, or applying heat at a given spot on the body surface often produced proximal or even distal reflexes to relieve or cure certain disease syndromes. Finally the location of the points became definite by virtue of their therapeutic properties, and names according to their specifications were given to facilitate memorization and clinical use. Many of these point names are still used today.

Through several thousand years of medical practice the Chinese people learned the value of points not only in therapy but in diagnosis as well. As a patient often suffered from soreness, distention, pain or other discomforts in the affected area, people gradually discovered the relation between certain acupuncture points and a given disease. It is possible today by using a probing apparatus to help diagnose a disease in its prodromal stage or after onset by observing the reaction at the related points. And, going a step further, as stimulation of the points may adjust channel and viscera function, clinical practice has shown that massaging or puncturing at the appropriate points may even prevent certain diseases.

The discovery of points and their functions marked significant progress in acupuncture. Apart from establishing their positions and therapeutic value, it contributes to the "theory of channels and collaterals," which is vital to the further development of acupuncture. Early acupuncturists had repeatedly observed that the sensation produced by a definite needle manipulation at a point always passed along to other parts of the body along definite routes, and that points in different areas might have similar functions. By linking these points or the closely related ones, lines of points were established,

and so arose the concept of "channels and collaterals," which implied the relationship among sets of points, and between those points and the respective viscera.

The vertically distributed "trunk lines" were described by physicians in ancient times as "channels," implying "passage," while the large and small branches of these "channels" were referred to as "collaterals," implying a "network." According to Chinese traditional medical books there were 12 channels, 15 collaterals, and 8 extraordinary channels interwoven into a "system of channels and collaterals" linking the viscera and the body surface, the head and limbs into one integrated whole. The introduction and development of this concept has enriched and elevated acupuncture in both theory and practice.

¹穴位. ²经络学说. ³孔穴. ⁴腧穴.

Major achievements in ancient times

Chinese medicine and pharmacology, with their long history, are rich in experience and theory. Numerous books were written on these subjects, but unfortunately many of them have been lost over the years. The earliest extant work is the *Canon of Medicine* which was compiled in the Warring States Period. The *Canon* is the recorded summary of medical knowledge at that time by men in medical work. It was enlarged and revised in the Chin and Han dynasties (221 B.C.-A.D. 220) and became an outstanding exposition of the elementary theoretical system of Chinese traditional medicine.

The Warring States Period was a time of great change in Chinese society, out of which the new feudal relations of production emerged. The use of iron implements had become more common, promoting the growth of agriculture and handicrafts, with resultant progress in science and culture. In this period there was achievement in astronomy, calendar-making, geography and mathematics, while the objective laws of some natural phenomena

gradually came to light. In medicine, too, men had gained much experience, which was incorporated into the *Canon of Medicine*.

This book is in two parts: "Su Wen"¹ and "Ling Shu"² (Fig. 4) and describes acupuncture and moxibustion at length, especially "Ling Shu," where detailed accounts are given on channels and collaterals, points, needles, manipulation methods and indications and counter-indications for acupuncture and moxibustion.

Exposition of the theory of channels and collaterals and a record of the ancient "nine needles" first appeared in the *Canon of Medicine*. The work also discusses therapeutic properties of acupuncture and moxibustion, particularly as an analgesic. Acupuncture is described as instantly effective against headache, toothache, sore throat, earache, stomach and abdominal pain, and arthritis. In the chapter on channels and tendons of "Ling Shu," the rule "puncture the painful spot" is stressed for stopping pain and for treatment.

Thus the *Canon of Medicine* summarized for the first time the functions of acupuncture and moxibustion, and laid the foundation for further advance.

The book *Zhen Jiu Jia Yi Jing*³ (*A Classic of Acupuncture and Moxibustion*), which came after the *Canon*, is the earliest extant work to treat the subject systematically. The book was compiled in the 3rd century A.D. by Huangfu Mi⁴ (215-82), a native of Anting⁵ County (southwest of present-day Lingtai⁶ County, Kansu Province). It was a time of violent turmoil in Chinese society as feudal regional powers contended incessantly, resulting in decimation of population. Survivors were left homeless and

hungry, plagued by disease. It was in this situation that acupuncture and moxibustion, easily and inexpensively administered, found wide use.

Huangfu Mi became interested in medicine and began applying this therapy only after witnessing the prevalence of diseases, he himself being a victim of rheumatic arthritis since middle age. He wrote a book in which he summarized knowledge of acupuncture and moxibustion of the period from the 2nd century B.C. to the 2nd century A.D. The work is a combination of relevant materials drawn from various chapters in the *Canon of Medicine*, the findings of his own clinical practice and material from *An Outline of Acupuncture and Moxibustion Points and Channels*.⁷ Huangfu Mi's book, completed in A.D. 265, gives separate lists of point locations on the head, face, thorax, abdomen, back and other regions, as well as methods of treating various diseases.

In *A Classic*, 349 point names are established, many of them unlisted in the *Canon of Medicine*. The book also gives the underlying theory of acupuncture and moxibustion, the main therapeutic properties of each point, indications and counter-indications and manipulation methods. Rated as the second earliest comprehensive summary, *A Classic* is a milestone in the historical development of this branch of medical science. From its compilation in the 3rd century it served as the main source book till the Sung Dynasty in the 11th century. From the 5th century the book found its way to places outside China.

Chinese medicine and pharmacology made fairly great progress in the Tang Dynasty (618-907). During its first

period (618-741) feudal economy grew rapidly, leading to increased trade and cultural exchange with other countries. The more elaborate division of work that appeared in the medical field at this time, with acupuncture and moxibustion occupying an independent department, reflects this progress.

In China, medical skills had always been handed down from master to apprentice. In the Sui Dynasty (581-618), however, to serve their own needs, the feudal ruling class founded an "Imperial Medical College"⁸ to administer medical work and train doctors. This was probably China's earliest medical educational institution, with acupuncture and moxibustion forming a definite unit in the medical department.

According to the *Old History of the Tang Dynasty*,⁹ the Imperial Medical College at that time had "one professor of acupuncture, one assistant professor, ten instructors, twenty needle-craftsmen and twenty students." The main teaching materials used were "Su Wen," "Ling Shu" and *A Classic of Acupuncture and Moxibustion*.

Prior to the 5th century the channel courses and point locations relied on the descriptions in medical records. Later, however, doctors realized the value of charts in selecting and differentiating points in clinical practice, and coloured charts of channels and points on the human body were made. The *Qian Jin Yao Fang*¹⁰ (*Thousand Golden Remedies*), compiled by the famous physician of the Tang Dynasty Sun Szu-miao¹¹ (581-682), contained the author's three newly verified coloured charts of channels and points on the human body, with front, side and back views. A passage in the *Remedies* explains that

the twelve channels are in five colours, while the eight extraordinary channels are in straight green. Unfortunately this treasure has been lost.

Two notable achievements in this field during the Sung Dynasty are the publishing of a book on acupuncture and moxibustion with nationwide circulation, and the appearance of the two first acupuncture figures, which were cast in bronze.

China invented printing as early as in the Sui and Tang dynasties (581-907), though it was not widely used at that time, most books being copied by hand and therefore more liable to error and omission. By the Sung Dynasty printing had been improved and was extensively used, so that books were turned out in greater numbers than ever before in China. The tasks of organizing material and correcting proofs in the publishing process resulted in an unprecedented amount of scholarly work in collation and revision during the Sung Dynasty.

Hand-written by many different people, pre-Sung books on acupuncture and moxibustion suffered from a certain amount of repetitions and confusion regarding location of points and channels, and in theoretical presentation. Because of this, the specialist Wang Wei-yi¹² in the 11th century reorganized and collated all materials available on the subject at that time. Carefully verifying the various theories on points and channels, he defined the precise positions of points and unified the channel routes. Adding his own clinical experience, he compiled a book in 1026 which became authoritative throughout the country. Later titled the *Illustrated Manual on the Points for Acupuncture and Moxibustion on the New Bronze*

Figure,¹³ it gave detailed information concerning the points, channels, depths of puncturing and effects. The total number of points after verification was raised to 354. Illustrations were used to assist teaching and clinical practice. The work clarified the locations and functions of certain points and further promoted this branch of medical science.

Not long after it appeared, the full text of the book was cut on two stone tablets each some two metres high and seven metres wide. These were erected in the Sung Dynasty capital, now the city of Kaifeng in Honan Province, where they could be read directly or from ink impressions made of them.

While working on his book, Wang Wei-yi directed foundrymen in the casting of two life-size bronze figures, which were completed in 1027. Earliest of their kind, these hollow models have the exact locations and names of points marked on the surface. Chou Mi¹⁴ (1232-98) of the Southern Sung Dynasty records in his work *Qi Dong Historical Anecdotes*¹⁵ that, for the purpose of testing students, the bronze figure was coated with beeswax and filled with water so that when the student punctured a point accurately water issued from it.

The casting of the bronze figures was a landmark in the progress of the science of acupuncture and moxibustion. Intended for instruction, they are now treasured relics of Chinese medical science, indicating the wisdom and craftsmanship of the Chinese working people early in the 11th century.

Two hundred years later, when the Yuan Dynasty built its capital at Tatu¹⁶ (now Peking), the bronze figures and

engraved stone tablets were removed to the new capital to be placed in the Temple of Three Emperors at the Imperial Medical College.¹⁷ Much use, however, had worn these objects down so that in places they were undecipherable. In the mid-13th century reproductions of the bronze figures (Fig. 5) and the stone tablets were made. The latter were titled this time *Illustrated Manual on the Points for Acupuncture and Moxibustion on the Bronze Figure*.

After that, up until 1965-71 when five fragments of the Sung tablets (Fig. 6) were found in Peking by the Bureau of Libraries, Museums and Archaeologic Preservation,¹⁸ they were thought to have been lost. The discovery provided highly valuable firsthand material for research into the history of acupuncture and moxibustion in China, for on these broken pieces some of the routes of channels, names of points, depths of puncturing and durations of moxibustion are still legible.

Down to the Ming Dynasty (1368-1644) Chinese medicine and pharmacology kept pace with the over-all growth of social productivity of that time as evidenced by the emergence of workshops of a rudimentary capitalist nature, such as paper and textile mills, dyehouses and ironworks. Meanwhile, from the 15th century onward, China's ocean shipping and foreign trade greatly expanded. Cultural and economic relations between China and other countries were spurred by the celebrated navigator Cheng Ho¹⁹ (1371-1435) who led his first fleet of merchant ships overseas in 1405, followed by six more voyages to the South Sea Islands, ports bordering the Indian Ocean, Persia and other Arabic states. It was in this period that China's outstanding medical scientist Li Shih-chen wrote

and compiled the *Materia Medica*, an important work in pharmacology and botany. Acupuncture and moxibustion were developing concurrently, and Li Shih-chen expounded the theory of channels by his work *An Investigation of the Eight Extra Channels*²⁰ in which he elaborated on the courses of these channels, diseases pertaining to each and principles involved in treatment.

Other contributions to this branch of medical science in the Ming Dynasty were made by Kao Wu²¹ and Yang Chi-chou.²² Kao Wu collected excerpts pertaining to acupuncture and moxibustion from the *Canon of Medicine* and other books, and compiled *A Summary of Writings on Acupuncture and Moxibustion*.²³ The conciseness of the book suited it for use by beginners. Later, from a wider range of extant materials, he completed in 1537 *Essential Readings in Acupuncture and Moxibustion*,²⁴ covering channels, points, selection of points in clinical practice, manipulation of needles and moxibustion methods. The author made many commentaries, among them his disapproval of the inaccurate method of needling through clothing.

Kao Wu also cast three bronze figures — a man, a woman and a child — indicating his views on the differences in location of points, and correcting some errors of location as recorded in post-Sung medical books.

Towards the end of the 16th century Yang Chi-chou excerpted from a comprehensive collection of books and papers from ancient times onwards, adding his own reflections and clinical experience, to compile the *Compendium of Acupuncture and Moxibustion*.²⁵ The book, copiously annotated, discusses channels, points, manip-

ulation of needles and methods of moxibustion, indications and therapies in combination with medical means. As the originals of many of the source materials in the *Compendium* were subsequently lost, their incorporation in the book was an invaluable contribution to the study of pre-Ming materials. Since its publication in 1601 the *Compendium* has for three centuries enjoyed wide readership among specialists both in China and abroad.

¹《素问》. ²《灵枢》. ³《针灸甲乙经》. ⁴皇甫谧. ⁵安定. ⁶灵台. ⁷《明堂孔穴针灸治要》. ⁸“太医署”. ⁹《旧唐书》. ¹⁰《千金要方》. ¹¹孙思邈. ¹²王惟一. ¹³《新铸铜人腧穴针灸图经》. ¹⁴周密. ¹⁵《齐东野语》. ¹⁶大都. ¹⁷“太医院”. ¹⁸文物管理处. ¹⁹郑和. ²⁰《奇经八脉考》. ²¹高武. ²²杨继洲. ²³《针灸节要》. ²⁴《针灸聚英》. ²⁵《针灸大成》.

Great advance in acupuncture and moxibustion with the birth of new China

Suited to popular need, acupuncture and moxibustion have been widely used and continuously improved through the ages. Prior to the founding of the People's Republic, however, the prevalence of feudalism for more than 2,000 years, with its superstitions and limited knowledge of science, had tainted acupuncture and moxibustion with idealist and metaphysical elements and inhibited their progress.

From the middle of the Ching Dynasty (1644-1911), especially from the Opium War of 1840-42 through the Kuomintang reactionary rule, acupuncture and moxibustion suffered mortal blows and were on the verge of extinction.

Mid-Ching feudal rulers regarded these methods as “damaging” to their “prestige” and summarily rejected them. A government decree in 1822 eliminated acupuncture and moxibustion from the Imperial Medical College curriculum. Feudal literati who disparaged the methods seized this opportunity to slander them as “inelegant,”

and towards the end of the Ching Dynasty they were dropped entirely from the list of subjects in medical examinations.

In 1929, when the reactionary Kuomintang ruling class pushed their enslaving educational programme to suit the needs of the imperialists, they went so far as to make a government decision banning Chinese traditional medicine altogether. Though not entirely effective because of popular and professional protest, the ban was a heavy blow hindering the development of acupuncture and moxibustion. But these methods, whose efficacy has been established over the centuries, remained in favour among the masses.

The Communist Party of China has always attached great importance to the valuable legacy of China's traditional medicine and pharmacology. Before the liberation of the country in 1949, when revolutionary wars were being carried on, acupuncture and moxibustion were highly valued medical methods used and promoted in the liberated areas. As early as 1928, soon after the founding of the Chinese Workers' and Peasants' Red Army and the establishment of the first base area, Chairman Mao had pointed out in his article "The Struggle in the Ching-kang Mountains" the principle that both Chinese and Western medicine should be used to serve the Red Army and the people in the base area. In the period of the agrarian revolutionary war, when the liberated areas were closely blockaded by the Kuomintang reactionaries, acupuncture and moxibustion served the masses and Red Army men well.

At a conference of cultural and educational workers of the Shensi-Kansu-Ningsia Border Region held in October

1944 at Yen-an, Chairman Mao called on the doctors of both Chinese and Western medicine to work and go forward together, striving to cure or prevent the diseases that afflicted the people and the animals of the border region. At a forum of doctors of both schools soon after that, an old doctor of the Chinese traditional medicine school related his more than 30 years' experience using acupuncture and moxibustion, and some medical workers in Yen-an began to learn from him. In April 1945 the Yen-an Peace Hospital opened its acupuncture and moxibustion out-patient department. The therapies grew rapidly in popularity, with many patients becoming convinced of their simplicity, safety and quick results.

During the War of Liberation classes in acupuncture and moxibustion were frequently held in the liberated areas, training many People's Liberation Army medical workers who applied the therapy in treating malaria, enteritis, indigestion, dysentery, respiratory infections, toothache, arthritis, neuralgia of the extremities, and scores of other diseases. They played no small role in the recovery of sick and wounded army fighters and so to the victory of the War of Liberation.

After the founding of the People's Republic of China, under the brilliant leadership of the Chinese Communist Party and Chairman Mao, and guided by the Party's policy on Chinese traditional medicine, this once suppressed science, like a withered tree, revived and gained new life. The *Renmin Ribao* (*People's Daily*) began publishing articles introducing and recommending the disparaged therapy. In 1950 Peking and many other provinces and municipalities established research institutes for its study, while hospitals opened acupuncture

and moxibustion departments and medical colleges offered courses. Books and papers were published on the subject in many parts of China; training classes were held, admitting students from other countries. The period of the First Five-Year Plan (1953-57) witnessed the flourishing of this branch of Chinese traditional medicine on an unprecedented scale.

In 1958, acting on Chairman Mao's teaching that **"Chinese medicine and pharmacology are a great treasure-house, and efforts should be made to explore them and raise them to a higher level,"** medical workers throughout the land eagerly studied Chinese traditional medicine and combined it with Western medicine. This upsurge gave impetus to a mass movement to learn and popularize acupuncture and moxibustion, improving them with new skills.

Needling of the pinna,¹ or external ear, now much discussed and widely practised, is an achievement stemming from the legacy of Chinese traditional medicine. According to the theory of the channels and collaterals, the pinna is closely related with the whole system. A symposium in "Ling Shu" states: "The ear is where all the channels meet." That is, the pinna contains a close network of channels and collaterals through which every part of the body may be affected. The *Canon of Medicine* describes the intricate links between the pinna and the other organs and notes that any physiological or pathological change in the heart, kidney, brain, liver, spleen or small and large intestines may be reflected on the pinna. Methods of treatment by pinna puncturing are recorded in ancient Chinese medical books.

Modern development of the therapy began in 1956 when the Laihsi County Hospital in Shantung Province obtained marked results in treating acute tonsillitis by the old folk practice of pinna needling. In 1957, at a seaside work-site in Amoy, doctors effectively treated stye and some other eye diseases by pricking on the back of the pinna, causing slight bleeding. Research and clinical practice by Chinese medical units resulted after 1958 in a greater versatility in pinna needling. It was found effective not only in alleviating headache, toothache, backache, neuralgia, colic pain of gall bladder and kidneys, and relieving pain during skin incision, but also to treat insomnia, hypertension, ulcers and enuresis, among other diseases. Probing or direct inspection of the pinna was also found to be an aid in diagnosis. Spots on the pinna giving the greatest pain reaction on pressing may help locate a disease. Diagnosis also can be made by observing any discoloration, desquamation, eczema or local lesion at the corresponding area of the ear. Pinna needling can therefore be said to be valuable both in clinical diagnosis and in treatment and prevention of disease.

Among ancient acupuncture methods is "finger puncturing."² Instead of needles, this method uses fingers to pinch or knock at the location of a point. The earliest record found is in a medical book compiled in the Tsin Dynasty (265-420) about the rescue of a person in coma by pinching at Point Renzhong on the upper lip. The practice became common in many households in China as a first-aid measure in cases of coma or shock. Ancient medical papers also recorded treating sore throat by pinching at Point Hegu,³ also known as "hukou,"⁴ which

is located at the highest spot of the muscle when the thumb and the index finger are brought close together. After 1958 indications for this pinching method extended to include headache, migraine, toothache, common cold and rhinitis.

Another method, point-injection therapy,⁵ a combination of Chinese and Western medical practice, was developed on the basis of acupuncture. Disease is treated or prevented by the combined effects of needling and drugs. Distilled water or drugs in small doses are injected into the points or painful spots. Advantages of this therapy are its versatility, economy in the use of drugs, short course of treatment, and effectiveness.

In addition, there are face-puncturing, hand-puncturing and foot-puncturing therapies, which are differentiated by needling positions, as well as electro-puncturing,⁶ plum-blossom needling⁷ and absorbable surgical suture imbedding therapies,⁸ named according to the medical tools and the methods used. Each of these therapies has its own features, but all are effective to various degrees in stopping pain and curing illness.

The acupuncture models made since the founding of the new China have shown marked progress. In 1959 China produced the "glass man" indicating points and channels. It is a life-size figure showing the 14 channels and their main points (Fig. 7). The viscera and skeleton are in place. The organic glass of which the figure is made allows the channel distribution and points to be seen clearly. Though there are problems yet to be solved in points of craftsmanship, the model has been valuable in teaching. Several varieties of small plastic acupuncture manikins have been manufactured in recent years

with the points and channels marked more accurately than heretofore. Their portable size makes them a handy reference.

In the Great Proletarian Cultural Revolution, guided by Chairman Mao's revolutionary line in health work, medical workers in China roundly repudiated Liu Shao-chi's revisionist line, as a result of which they scored new successes with acupuncture and moxibustion and further improved needling technique by more effectively combining Chinese and Western medical theories. Acting on Chairman Mao's teaching to **"serve the people wholeheartedly,"** revolutionary medical workers have boldly and selflessly experimented with needle insertion on themselves, disproving incorrect "absolute rules" concerning some points and discovering new functions of certain others. They have also debunked certain "forbidden zones," "forbidden points" and "maximum depths" of needle insertion, and discovered many new points.

During the Cultural Revolution, People's Liberation Army medical workers introduced the New Acupuncture Method,⁹ featuring fewer insertions, deep puncture, penetration puncture, swift insertion, strong stimulation and non-retention of needle. In penetration puncture, the needle enters the skin horizontally and travels subcutaneously to reach two or more points, bringing combined effect with one insertion. The tip of the needle must not re-emerge through the skin. The New Acupuncture Method has proved its worth in treating partial deaf-mutism, partial paralysis and incontinence of urine, and restored many such victims to normal life.

In 1968 a People's Liberation Army medical corps treated students of the School for Deaf-Mutes in Liaoyuan City,

Kirin Province. The corps members made preparations by needling themselves up to hundreds of times in order to obtain the desired sensations. While giving the treatments they continually analysed and improved their methods by testing them on themselves, using deep insertion at Point Yamen at the nape of the neck. Their courage and perseverance eventually led them to the conclusion that puncturing to a depth of about 2.5 *cun** at this point gave maximum results. They had inserted their needles into a supposedly "forbidden zone" in acupuncture, and raised its effectiveness against deaf-mutism.

The breakthrough once again proved the great truth that **"all genuine knowledge originates in direct experience."** This method has since been widely used in China with good results.

* In acupuncture, the depth to which the needle is inserted varies according to the patient's size. The term *cun*(寸) is used to measure this depth. When the patient forms a ring by joining his middle finger to his thumb, the inside distance between the second and third joints of the middle finger is one *cun*.

¹耳针. ²指针疗法. ³合谷穴. ⁴"虎口". ⁵穴位注射疗法(水针疗法).
⁶电针. ⁷皮肤针. ⁸穴位埋线. ⁹新针疗法.

Acupuncture anaesthesia **— a breakthrough in medicine**

During the upsurge in 1958 to learn from Chinese medicine and combine the Chinese and Western medical sciences in treating disease, medical workers in China, basing on the traditional Chinese method to control pain by needling, began using acupuncture to relieve post-operative pain at the incision. Their success led to the idea of extending the method to replace anaesthetic drugs in surgical operations.

In line with the policy of combining Chinese and Western medicine, revolutionary medical workers repeatedly needled themselves to locate points effective in producing analgesia. That same year acupuncture anaesthesia was used successfully in tonsillectomy. The patients reported feeling no pain during operation, and there were no undesirable after-effects. Encouraged by this, more medical workers studied the technique, extending it with success to tooth extraction, thyroidectomy and herniotomy. Then, after much more experimental work and long clinical practice, the Chinese people at last introduced the

new technique of acupuncture anaesthesia — a big leap forward in the advancement of the needling art.

"New things always have to experience difficulties and setbacks as they grow." Acupuncture anaesthesia made its first appearance only to be suppressed under the counter trend of Liu Shao-chi's revisionist line. In a vain attempt to nip this new thing in the bud, the dissenters raved that it was "not scientific," "without practical value" and a "retrogression" in anaesthesiology. But the new and viable cannot be negated. Guided by Chairman Mao's revolutionary line, medical workers continued experimenting and summed up clinical experience to improve the method. After 1959 its use found success in many operations, including major surgery on the neck, chest, limbs, abdomen and brain.

As the patients are fully conscious throughout even a major operation, they can co-operate and respond to the surgeons' questions and directions. Some patients listen to the radio, drink fruit juice or eat fruit slices during operation. Clinical practice shows the method to be safe, simple, easily popularized and non-conductive to physiological functional disorders. Its range of application is wider than that of anaesthesia with drugs. The patient's recovery is quicker and without side-effects. Some patients for whom anaesthesia by drugs is contra-indicated undergo surgery safely with acupuncture anaesthesia. More important is the active role the patient is enabled to take under acupuncture anaesthetization, a great advantage favouring speed and success in the surgical operation and rapid post-operative recovery.

With the Great Proletarian Cultural Revolution were introduced various new methods in acupuncture anaes-

thesia. Needle insertion at points on the ears, fingers, feet and lips, or simply pressure at a point with a finger, produce the analgesic effect. The advantages of these methods are that fewer points are used to produce the same effect, simplifying the procedure and facilitating needle manipulation. Points on the lips used for anaesthesia are the Renzhong¹ on the upper lip and Cheng-jiang² on the lower. Renzhong is a point used also in treating coma. Anaesthetic puncturing at this point, then, also produces sedation, at the same time being a prophylactic measure against coma or shock during operation.

Many hospitals in China now use acupuncture anaesthesia extensively and for patients of all ages from infants to octogenarians, including patients in critical condition. It has proved successful in more than a hundred types of major and minor operations from simple to highly complicated ones such as cardiac surgery under extracorporeal circulation. The number of points used has been reduced as technique advanced; e.g., whereas more than 80 needles were required in pneumonectomy, 3 or 4, or even only 1 or 2 are sufficient now, making the method still more widely acceptable.

As the new technique bears upon both acupuncture treatment and anaesthesia, it has posed many new problems and thus provided fresh impetus to the advancement of medical and other natural sciences. Acupuncture anaesthesia has generally freed patients who have undergone major abdominal surgery from fasting and intubation for abdominal distention. Post-operative patients, who now eat and move about freely, recover quickly — a significant improvement in abdominal surgery.

The Party and the people have consistently supported this new method in medicine. *Renmin Ribao* reported its first success on July 19, 1971 as a brilliant achievement of combining Chinese and Western medicine. *Hongqi* (*Red Flag*), another Party organ, presented a forum of "discussion on the theoretical principles of acupuncture anaesthesia" in its No. 9 issue for 1971, in which appeared a number of papers and editorial comments that encouraged medical and scientific workers to further explore the theory of channels and develop the principles of acupuncture anaesthesia.

¹人中穴。 ²承浆穴。

Summary

Unearthed ancient materials, extant historical records and current clinical practice have all shown acupuncture and moxibustion, creations of the Chinese people in their struggle against diseases in ancient times, to be widely used, effective methods which have stood the test of time and have therefore become a part of the entity known as Chinese medicine and pharmacology.

The Chinese people have been improving the methods in several thousand years of medical practice. Their clinical experience and theoretical knowledge in the field have necessarily been gained in a step-by-step process, from a lower to a higher stage, from superficial to profound and from one-sided to more comprehensive. Stone needles were first used, then metal. From occasional discoveries of acupuncture points came the formulation of the theory of channels and collaterals; from acupuncture to arrest pain came its upgrading as a specialized medical branch and finally as anaesthesia for surgical operation. Such are the processes of the development of acupuncture and moxibustion. In the hundred years

and more prior to the founding of the People's Republic of China this branch of medical science suffered heavily under the imperialists and reactionary forces then in power.

With the guidance of Chairman Mao's revolutionary line in the new China, this legacy has been taken over and promoted. Chinese medical workers, scientists and technicians, acting on the principles of **"making the past serve the present"** and combining Chinese and Western medicine, have carried forward research in the field, popularizing the therapy and increasing its efficacy. The triumph of acupuncture anaesthesia is a new leap forward which has not only enriched the science of acupuncture and moxibustion and anaesthesiology, but also precipitated the advancement of medical and other natural sciences.

However, problems remain to be clarified. For example: the essential nature of the point and channel, and the mechanism of the therapeutic and analgesic properties of acupuncture and moxibustion. Also, drawbacks still exist in acupuncture anaesthesia. It has not, for example, yet been perfected to the level of producing complete analgesia in every case, or at every stage of an operation. Muscle spasm or an unpleasant pulling sensation of the internal organs may still occur.

The Chinese medical workers will continue to abide by the principle of combining Chinese and Western medicine and, following the dialectical-materialist approach, go on summing up scientific research and clinical experience with the aim of further developing acupuncture and moxibustion as well as acupuncture anaesthesia in the service of the people.

