Books by Felix Mann M.B.

Acupuncture—Cure of Many Diseases

Atlas of Acupuncture

The Treatment of Disease by Acupuncture

The Meridians of Acupuncture

Acupuncture: The Ancient Chinese Art of Healing and How It Works

Scientifically

ACUPUNCTURE

The Ancient Chinese Art
of Healing
and How It Works Scientifically

Completely Revised Edition

FELIX MANN, M.B.



A Division of Random House, New York

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these are as yet unknown to us) despite the fact that they are expressed in a language that we might call unscientific.

Some doctors or patients may indeed wonder how one can practise a form of medicine where the theories on which that practise is based are possibly suspect. Just as a doctor will prescribe aspirin because he knows what are its effects in the body of a patient, so an acupuncturist will needle a certain acupuncture point because he knows what the consequent reaction of the body will be. It is of secondary importance to the doctor to know just why it is that aspirin has its specific effects, (no matter how intellectually interesting such knowledge might be.) At the time of writing little is understood of why the known effects of aspirin take place, yet aspirin, with its simple chemical formula, is the most commonly used drug in the world.

The reader will be made aware by various remarks throughout this book, particularly those in chapter XI, that I believe neither in the major part of the traditional Chinese theoretical explanation of acupuncture nor even in its practical application where this is based solely on traditional theory. Doctors who follow my courses in acupuncture will find that this divergence in both theory and practice is no hindrance to the successful treatment of a large number of diseases occurring in their patients. Doctors who wish to study acupuncture are welcome to write to me. From time to time I give courses, largely of a practical nature, during which I concentrate on those aspects of the subject that would be difficult to describe in a book.



NEURAL THEORY OF THE ACTION OF ACUPUNCTURE

In acupuncture, the needle is frequently placed at the opposite end, and possibly opposite side, of the body from that of the diseased organ or site of symptoms. Under certain conditions one of these distant and contralateral pricks can have an effect in one or two seconds. This speed of conduction excludes the blood and lymphatic systems (at least in this type of response) and leaves to my way of thinking, the nervous system as the only contender.

There are other, though non-neural, theories:

Kim Bong Han* described a special conducting system of Bong Han ducts and corpuscles, corresponding to the course of acupuncture meridians. Kellner † has shown that some of the above theory is based on artefacts occurring in the preparation of histological slides. Some have thought that the meridians look like the lines of force round a magnet and postulate a magnetic theory, Others somehow manage to bring in Quantum mechanics. A Japanese researcher thinks that there is a contraction wave following the course of meridians, along the surface of the skeletal muscles. Some liken the pinprick in the body to the electrical discharge of a condenser. A few say the pinprick releases cortisone or histamine or adrenaline but fail to explain the specific action of the acupuncture points. I once had a theory concerning the lateral line system in fish, which I have since discarded. I am now fairly convinced that the nervous system is the transmission system used in acupuncture. The remainder of this chapter discusses this neural acupuncture theory: part is based on well-known anatomy and physiology, part is conjecture, and pare requires experimental proof.

Cutaneo-Visceral Reflex

Acupuncture is based on the fact that stimulating the skin has an effect on the internal organs and on other parts of the body, a rela-

*Kim Bong Han, On the kyungrak system, 1964, Foreign languages publishing house, Pyongyang.

†International acupuncture conference in Vienna and German acupuncture conference in Wiesbaden.

\$See chapter XII of the 1st edition of this book.

that when the stomach area on the anterior third of the middle turbinate was stimulated that the gastric secretion and movement were increased.

(It should be noted that in the above experiments stimulation of the supper turbinate affected the (heart, the middle turbinate) the stomach, and the lower turbinate the reproductive organs,

Specific Response versus Generalised Response

In the practice of acupuncture it is sometimes found that one (or a small group) of acupuncture points are effective in treating a certain patient. On other occasions, any one of several meridians (encompassing a large number of acupuncture points) can be effective. In the former case a specific stimulus is mandatory, in the latter nearly any general stimulus is all that is needed.

The specific response presumably takes place, along the lines of

the nervous pathways described in the previous sections.

The generalised hypersensitivity on the other hand seems similar to the pain one can sometimes have with severe toothache when the whole of the same side of the face, arm and upper chest are hypersensitive. In the same way the viscera may sometimes become hypersensitive affecting the nerves in a large area, and hence only require in treatment an acupuncture needle put anywhere in a large area, in any of a large number of acupuncture points, or in any of several meridians.

In other cases a stimulus anywhere in a large area does not depend on hypersensitivity, but on the large number of neurones that have a final common path. Ashkenaz* stimulated the gall bladder of cats by inflating a balloon. This caused contraction of the panniculus carnosus muscle (the cat's equivalent of the platysma, but extending over most of the body). This viscero-pannicular reflex was only abolished when all the dorsal roots T2 to T9 were severed, a single root being sufficient to preserve the reflex, thus demonstrating the convergence that can take place.

Diseased organs seem to have a lowered threshold of response, for only a small stimulus is needed to correct a dysfunction of a

*Ashkenaz, D. M. An experimental analysis of centripetal visceral pathways based upon the viscero-pannicular reflex American Journal of Physiology, 1937. 120: 587-595.

GENERAL CONSIDERATIONS

insiderable

diseased organ. On the other hand a very considerable stimulus is needed to alter the function of a healthy organ. For this reason the small prick of an acupuncture needle can cure some of the severest diseases, and yet is normally harmless if the wrong treatment is effected, as the threshold of response of the healthy organ is beyond the stimulus of a mere needle prick.

It should be noted that the Chinese describe the acupuncture points as being quite small-a matter of millimetres. In my experience this is only true to a limited extent, for not infrequently a stimulus anywhere in an area as large as a dermatome (or several dermatomes if there has been spread of hypersensitivity) is sufficient. If this largish area is carefully examined by hand a few small areas of maximal tenderness, with possibly small fibrositic-like nodules, will be found (similar to the small areas of maximal tenderness found when a large area such as the neck and shoulders are 'rheumatic'). If these small areas of maximal tenderness, or the 'fibrositic' nodules are stimulated by an acupuncture needle the response is normally greater than when the surrounding less tender area is needled. If the dysfunction of a diseased organ is mild, a reflex tenderness may not be produced over the whole of a derinatome, being demonstrable only in a few small tender areas-the same areas as mentioned a few lines above. These small tender areas of 'fibrositic' nodules are relatively constant in position, whether the remaining surrounding part of the dermatome is tender or not. This constancy in position applies from one individual to another, and is likewise the same for any variety of diseases producing a reflex tenderness in that area. It is these small tender areas of constant position, which are termed the acupuncture points; although, as mentioned above, a stimulus anywhere in the appropriate dermatome (or sometimes even larger area) may work, albeit frequently not so well.

Some years ago David Sinclair, professor of anatomy at Aberdeen University, wrote an as yet unpublished paper, which he has kindly let me read, concerning the reflexes between the skin and viscera defined as viscero-somatic, somato-somatic, viscero-visceral, somatovisceral. In this article Sinclair quotes a hundred papers (several of which are mentioned in this chapter) concerning these reflexes which are the presumed mechanism of acupuncture—though probably most of the authors know nothing or little of acupuncture. At the

treatment often becomes spontaneously tender. This tenderness is so exaggerated in the case of the points of alarm that it is used as a palpatory method of diagnosis in the following manner.

The patient is asked to lie flat and relaxed on a couch, with the chest and abdomen bare. The points of alarm are then palpated and if they are more tender than the surrounding tissues a functional disturbance of the organ which they represent may be deduced.

The area of tenderness and of superficial tissue changes as shown by palpation is considerably larger and more easily noticeable in the case of the alarm points than in that of the other types of acupuncture points when comparably activated. These two factors, taken together with the relatively greater increase in tenderness of this type of point, constitute useful diagnostic criteria.

The alarm point may become spontaneously painful, so that the patient is aware of it without it being pressed, more easily than in any other type of activated acupuncture point. Naturally this

makes diagnosis casier.

3. Normally the point of alarm is considered a point of tonification, which, if stimulated, increases the energy in the meridian

which it subscrives.

The tonification of the meridian-organ concerned is followed to some extent by a tonification of the meridian which preceeds and follows it in the superficial circulation of energy and also the

deep circulation of energy (five elements).

4. In my experience the point of alarm serves equally well as a point of sedation but care must be exercised in sedating an overactive alarm point as a hypertonification may unwittingly be the result, with an acute exacerbation of the condition being treated. This exacerbation can sometimes be avoided by stimulating the point of alarm for only a few seconds instead of the customary

5. Usually a qualitative increase in the Yang elements at the

pulse will be noted. This is an uncertain response.

Illustration. In patients with diseases of the upper digestive organs, very frequently the point of alarm of the stomach, Cv12, (Fig. 43) becomes spontaneously tender. A needle put into this point may cause immediate relief of upper abdominal distension and nausea. The fundamental condition however will have to be treated by other points.

Associated Points

Qi Bo: 'If you press with your finger on these points, the pain of the corresponding organ is immediately relieved.

(Nei Jing, Ch. 51)

All meridians have an associated point on the back along the medial course of the bladder meridian on each side of the vertebral column. According to Qi Bo (Fig. 44):

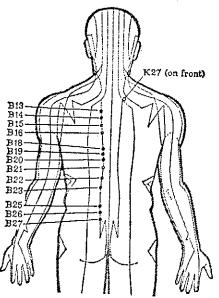


FIG. 44 Associated points

Meridian	Point
Lung	point B13
Pericardium	point B14
Heart	point B15
(Governing vessel	point B16)

Liver	point B18
Gall bladder	point B19
Spleen	point B20
Stomach	point B21
Triple warmer	point B22
Kidney	point B23
Large intestine	point B25
Small intestine	point B27
Bladder	point B28

One special point to be noted is (K27. This is considered to act as the associated point for the whole series

The associated points, which are all paravertebral on the dorsal surface, have certain characteristics which are in contrast to the points of alarm:

- I. Classically they are points of sedation. According to the laws of acupuncture, once the meridian concerned with a particular associated point is sedated, it in turn causes a sedation of the meridian which precedes it and the meridian which follows it, both in the superficial circulation of energy and in the deep circulation of energy. Classically, the procedure is the reverse of that which operates in the case of the points of alarm.
- 2. In my experience the associated points may be used with excellent results as points of tonification.
- e.g. Point B23 is usually very efficacious in cases of under-activity of the kidney.

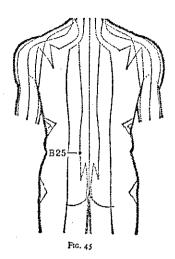
Although the point of alarm may cause an acute exacerbation if used in the inverse sense to that accorded by classical theory, this is not the case with the associated point.

- 3. These points have a general calming effect and are therefore used in Yang diseases such as over excitation and fever.
 - Li Kao Tong-iuann of the twelfth century writes:

*To treat a disease caused by wind or cold, you must stimulate the associated point of a storage, hollow organ. In fact the illness entered by the Yang and then flowed through the meridians. If it started by a cold exterior it must finish by returning to the exterior by warmth.

4. Chinese osteopathy uses these points to correct small displacements of vertebrae. The rationale is as follows:

In a disease of the descending colon, the associated point of the large intestine, B25 (Fig. 45), on the same side as the descending colon, i.e. the left, will together with other points become spontaneously tender. This causes a spasm of the muscles in the vicinity of point B25 on the left. These muscles which are adjacent to, and attached to, the fourth lumbar vertebra, cause it to be displaced towards the left.



Hence a disease of the descending colon may, under the correct conditions, cause as a secondary result a displacement of the fourth lumbar vertebra to the left, with, if the displacement is severe enough, resultant lumbago and possibly sciatica.

Only rarely does an internal disease cause a displaced vertebra

(a) Not all internal diseases cause tenderness of the associated point, and hence muscle spasm.

The muscle spasm must be of a fairly severe degree.

Before displacement occurs there must in general be associated factors which could operate to facilitate the displacement of a

WORM INFESTATION

Chinese books usually give a fairly full description of diseases caused by worms. Such diseases were common in China, owing to the use of fresh, uncomposted night-soil. In my opinion Western medicine is superior to traditional Chinese medicine in its classification and description of helminthic diseases, so it is unnecessary to elaborate further on the topic here. One of the greatest benefits Western knowledge has given to China has been the prevention of helminthic diseases by adequate sanitation, drainage systems and general cleanliness.

PENETRATING POISONS

Included in this group are all diseases due to the consumption of poisonous berries, wood alcohol, bad or poisonous fish, bad meat etc. In addition to the above are poisonous medicines, inaccurate prescriptions, or overdoses of normally beneficial medicines.

HEREDITY

This class describes the ordinary hereditary diseases which are dealt with in any Western book on medicine. It also includes shocks suffered by the mother during pregnancy:—

"If the man's mother had a severe fright while she was pregnant and the Qi ascended but did not descend... then this would cause the child to have epilepsy."

(Su Wen, qibing lun)

Χſ

NEEDLE TECHNIQUE

The only thing of importance in acupuncture is to stimulate the

right place. What the stimulus is, is of secondary importance.) Normally a needle is used, and this, in my experience, is the most effective. Massage, various types of electrical stimuli, mechanical vibrators, heating, magnetic oscillators have all been tried but are not quite as effective. In the Far East the pith of Artemesia Japonica (moxa) is dried and rolled into balls about two millimetres in diameter; one is placed on the acupuncture point of choice and lit so that it glows like the lighted end of a cigarette. This is an effective stimulus, but it may cause burns and even scars which do not necessarily disappear. This method, called moxibustion is supposed to be more effective in diseases due to cold and dampness, but in my experience this is not the case; and as it is no more effective than a feedle I rarely use it. Another type of heating treatment, used in diseases due to cold and damp is to use the long handled type of Chinese needle. About an inch is cut off a moxa stick which is shaped like a cigar, and pushed over the exposed part of the needle. The moxa is lit and the heat is conducted down the shaft of the needle to the surrounding skin and flesh. As I find this no more effective than simple needling, I rarely use it. There are many old and modern variations to the above, but none are as simple and effective as a needle.

The needles may be made of any material. Silver alloys have the advantage of having some self-sterilising properties, which is an additional secondary safeguard. Stainless steel is best for thin

needles as silver is too soft. Stainless steel needles have to be thrown away when they become blunt as they are difficult to resharpen. Silver needles can be resharpened on a very fine carborundum or other stone. The silver needles are best sharpened on several surfaces so that the tip is a cross between the cone of an ordinary sewing needle and the pyramid of a leather cutting needle. In this way they pierce the skin more easily yet do not cause bleeding as easily as a leather cutting or surgical needle. The much finer stainless steel needles should be sharpened like a cone, as is usual for ordinary needles. Injection needles may be used, but they easily cause bleeding and theoretically could harbour some dirt in the hollow of the needle; while a solid acupuncture needle, is, as it were, wiped clean on all its surfaces in its passage through the skin. If it is intended to leave the needle in place, it will be found that the head of an injection needle is rather heavy and pulls the needle out of place. I use a hot air steriliser. Small, cheap, automatic ones are sold in dental equipment shops.

Some European doctors differentiate between silver and gold needles founded on a misconception of tonification and sedation (see below). This may have arisen as a translating error as in Chinese the characters for gold and metal are the same. I have found no reference to it in the Chinese literature, though possibly it exists. Whilst in China, several doctors asked me what this new invention concerning silver and gold needles as used in Europe was all about!

Traditional Chinese works on acupuncture describe at great length about fifty different ways of inserting acupuncture needles, with names such as; 'burning mountain fire technique', or 'green dragon wagging tail technique'. These techniques involve the following: Inserting the needle 3 or 9 or 81 times; pointing the needle with or against the direction of flow of Qi along a meridian; twisting the needle clockwise or anticlockwise; inserting the needle fast and taking it out slowly as opposed to slowly in and fast out; inserting the needle in three stages and pulling it out in one as opposed to insertion in one stage and pulling out in three—and many more refinements. I have tried assiduously to find a difference between these methods, but have come to the conclusion that basically there is no difference except insofar as it includes what is said in the ensuing

The size of the stimulus increases with:

7. A fat needle.

2. The deeper the insertion.

3. The more the needle is pushed up and down, so that the tip causes greater localised trauma.

A blunt needle or one with a hook on the end (both undesirable).
 The more acupuncture points are used having a similar effect

(sometimes has severe effect).

6. Leaving the needle in longer (doubtful).
7. Repeating the treatment at frequent intervals.

Many doctors think that the bigger the stimulus, the greater the effect; but just as often it is the very reverse. I have many patients who respond best to only one or two shallow pricks with thin, sharp needles, with the needle not left in place and the treatment repeated only infrequently Certain constitutional types respond best to light treatment, others to heavy treatment, just as certain patients respond best to small and sometimes even microscopic doses of ordinary drugs while average doses of drugs may have no effect or make them feel ill. Because I recognise this great variation in individual sensitivity I have on occasions been able to successfully treat a patient by giving them a half to a tenth of the same medicine as their general practitioner was unsuccessfully giving them. Most chronic conditions I treat only formightly and finish the treatment at even longer intervals, for sometimes the effect of a treatment is only apparent after a week or more and if the second treatment is done before the effect of the first one is apparent, the two treatments may antagonise one another with either no result or a temporary worsening of the patient's condition. Acute conditions may be treated more frequently. Patients whom I see from abroad I of course treat at more frequent intervals; but it requires greater clinical experience and judgement on the doctor's part.

Chinese and European acupuncturists differentiate between tonification and sedation. Diagnostically one can say certain conditions represent underactivity whilst others represent overactivity. If for example the pulse is fine and weak one says it is underactive and requires tonification; if the pulse is strong and full one says it is overactive and the appropriate organ requires sedation. The Chinese and many Europeans also say that if the needle is inserted in a certain way, or one uses a silver needle, or one uses a point of sedation, that the appropriate organ is sedated; likewise if one inserts the needle

pages 24 and 25). If only a few neurones are involved, the skin area could be considerably smaller than a dermatome.

In most instances no doctor, even an expert in acupuncture, can find an acupuncture point in those areas where there is a big expanse; such as the abdomen, back and thorax. If a group of doctors is asked to locate a specific acupuncture point in such an area, their positions will quite often vary by a considerable amount, and yet all these doctors are able to help or cure a large proportion of their patients, provided they have a disease amenable to acupuncture. This suggests to me that small specific acupuncture points rarely exist, and that those researchers who have found specific types of specialised nerve endings or other structures at acupuncture points are mistaken.)The structures found by these histological investigations may well be there, but they do not correspond to acupuncture points, for they do not exist. Stimulation of any layer can be effective, whether it be skin, subcutaneous tissue, muscle or periosteum. Hence one should not speak of a dermatome, but rather of a dermomyo-sclerotome. This poses some problems, for the different layers do not always have the same segmental innervation.

In a disease of the viscera or other parts of the body there is often a reflex tenderness in the associated part of the surface. This tenderness may include muscle spasm or circulatory changes. It also presumably affects most histological structures throughout the entire depth of the appropriate area, due to their similar innervation.

As far as I know, there are no specific histological elements in McBurney's point, which becomes tender in appendicitis. I think nearly every single part of the body can become reflexly tender, in 2 way similar to that of McBurney's point. Hence the number of acupuncture points becomes infinited indeed some books mention so many acupuncture points that one wonders it there is any normal skin left.

McBurney's point is not a small discrete 'point,' but quite a large area, whose position is somewhat variable. McBurney's point lies in the appropriate dermatome. The remainder of the dermatome is not tender, or only mildly so, for as Kellgren (Fig. 5) and others have shown, certain areas within a dermatome show greater changes than others

Some acupuncture points seem to have a constant position and may be tender even in a completely healthy person:

G21 is situated where the trapezius arches over the first rib and hence is presumably under greater tension than other parts of the muscle.

SOME CONCLUSIONS

Sp9 is located below the medial condyle, over the lower part of the medial ligament of the knee, where many women have a tender oedematous area. As this usually occurs only in women, apart from those who have injured their knee, it is presumably hormonal. In some women this area becomes an oedematous pad of fat the size of a hand.

G20 is next to the greater occipital nerve where it arches over the occiput, just as B2 is adjacent to the supratrochlear nerve where it passes over the supraorbital ridge.

All the above and a certain number of other acupuncture points are nearly always tender, even in the healthy subject. This is probably often due to compressing a nerve trunk against the bone. Other places may be tender due to muscular tension sensitising the area and thus requiring a smaller stimulus from the acupuncture needle to be effective.

H7 is a more effective point than H3, as stimulation of H7 involves the needle piercing thicker skin and a hard ligament. This causes greater pain than needling the fatty tissue around H3 and thus obviously has stimulated more nerve fibres. For a similar reason acupuncture points which involve stimulation of the periosteum have usually a greater effect than those involving only subcutaneous fat, unless the needle is strongly twisted in the skin.

Stimulating a nerve trunk, which produces a lightning pain, is by no means more effective. In patients who have the so-called cervical disc syndrome and allied conditions, stimulation of the transverse process of the 6th cervical vertebra is more effective than trying to needle the adjacent nerves of the brachial plexus.

In my experience, contrary to classical theory, the type of stimulus used in acupuncture is of little importance, whether it be a needle, a thorn, an electric current, heat, a vibrator or injections. This would agree with the "all or nothing" response of nerve fibres, which either respond or do not respond to stimulation, there being no qualitative difference. The stronger the stimulus, the greater the effect, due to activation of a larger number of neurones or their repositive stimulation. The traditional theory that there is a qualitative difference between a hot or a cold needle, or the manner in