

Acupuncture originated in China, not in another country. The Iceman's Tattoo is not the Earliest Evidence of Acupuncture

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阿尔卑斯山五千三百年前的冰人身上有针灸起源的证据吗?

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ABSTRACT

In 1999 Mr L. Dorfer and Mr M. Moser et Al raised an opinion that they believe the acupuncture having originated in the Eurasian continent at least 2000 years earlier than in China. Their evidence was the tattoos of Iceman who died 5200 years ago but the mummy was discovered at the Oetzel Alps in 1991. It caused a temporary clamour and some anthropologists, even if some acupuncturists incorrectly relay this erroneous message so that the origin of acupuncture becomes increasingly distorted.

We wanted to clear their conclusion is true or not. We visited the South Tyrol Museum of Archaeology at Merano Bolzano in Italy and saw the Iceman's mammy May 2004. We studied it from the angle of acupuncture (we practised acupuncture 30-38 years already); from the angle of medical history; from the angle of anthropology, in particular cultural anthropology but we cannot find any evidence of acupuncture in the Iceman. The conclusion of Mr Dorfer et Al totally lacks any real evidence of acupuncture. The origin of acupuncture is their imagination so that it is unreliable and unbelievable. The genuine origin of acupuncture is sole in ancient China but not in any other countries.

摘要

自 1999 年 Dorfer 和 Moser 等发表文章提出针灸可能起源于欧亚大陆以来, 否认针灸源于中国的歪论一时甚嚣尘上。不少人类学者和针灸师亦以讹传讹, 混淆视听。为此我们专程到保存阿尔卑斯山冰人的博物馆进行考察并从针灸学, 人类学 (特别是文化人类学) 和医学史的角度做了研究。我们没有发现任何可以证明冰人纹身图案是针灸经络记号的证据。本文详细介绍了 5300 年前中箭身亡而作为冰人保存下来的木乃伊情况, 特别将纹身图案与经络走行作了比较, 探讨了古今中外各种纹身的目的及与医疗作用的关系。我们认定所谓冰人纹图证明针灸起源于西方之说仅仅是作者的想象和杜撰, 现在应予纠正。

Introduction

It caused a temporary clamour that the origin of acupuncture was in Europe following the articles of L. Dorfer, M. Moser, et Al⁽¹⁾. The authors published a series of articles in several journals or magazines but the material and conclusions were the same. Some authoritative publications e.g. Past Lives are also quoted in their conclusion⁽²⁾. This raised our interest and in May 2004 we made a special excursion to the Museum of Archaeology in Bolzano, Italy, where the remains of the prehistoric Tyrolean Iceman, familiarly known as "Oetzi", are excellently displayed.

We have studied and practised acupuncture 30-38 years. From our professional knowledge of acupuncture we did

research investigations on the iceman's tattoos. We cannot concur with Dr. Dorfer's assumption, we did not find any true evidence of acupuncture on the body of the Iceman. To chase the wind and clutch at shadows can only result in false guesswork but not scientific evidence. The origin of acupuncture in China was based on historical facts and the special cultural environment and the continual tradition of practice proved their existence. Acupuncture could only have originated from China, not from other countries.

A- The Iceman

The Iceman was accidentally discovered by two German tourists, the couple Erika and Helmut Simon,

in the Oetzel Alps on September 19, 1991. The melting ice on the Similaun glacier 10530 feet (3200 metres) above sea level revealed the corpse. They look it to belong to be an unfortunate mountain climber who had died maybe ten or twenty years earlier. The Innsbruck archaeologist Professor Konrad Spindler was the first one to recognise its age as 4000 years or more^(3,4). Mr Simon has since died, he failed to return from climbing in the Alps on 18 October 2004, aged 67 years⁽⁵⁾.

The anthropologists confirmed that the man was 25 to 35 years old when he died and was 5 feet 3 inches tall and weighed some 110 pounds (his corpse now weighs 44 pounds). Radiocarbon dating of the corpse in Oxford and in Zurich confirmed the corpse dates as between 3110 and 3370 BC or some 5200 years ago⁽⁶⁾. The cause of his death was believed to be "exhaustion" but recently, in 2001, scans revealed an arrowhead which had penetrated his shoulder blade and embedded itself in his rib cage; this indicated that he had been shot in the back. "He then surely bled to death"⁽⁷⁾. From the position in which he was found, the left arm extended across the body at shoulder level touching the neck, we think he fell forwards into this position and died soon after he was speared, from loss of blood and hypothermia. He had no energy to move his arm and the ice preserved his body from disintegration. His clothes were of leather and his tools and weapons, etc. were found nearby.

This discovery was unique in this area and "in any case Otzi is the oldest and best preserved human body ever found"⁽⁸⁾.

B- The tattoos of the Iceman's body

A total of 59 tattoos are to be found on the iceman's body in the form of groups of lines or crosses. Unlike modern tattoos, these were not made using needles but with tiny cuts into which powdered charcoal was rubbed⁽⁹⁾. The following characteristics of the tattoos are in particular interesting for us:

1. the tattoos are located on 6 areas: on the back near the spinal column, on the inner side of the right knee, the calves, the front of the right ankle joint, the outside of the left ankle and the back of the left wrist (this mark is not definitely a tattoo);
2. those locations are not symmetrical on the body;
3. the tattoos are in short linear form with often three or four lines parallel. Only two are in the form of crosses (one on the inner side of the right knee and the other on the outer side of the left ankle). Most parallel lines have a vertical direction but those on the back of the left wrist are horizontal;
4. there is not one tattoo in the form of a dot;
5. there is never a single line;
6. the length of the lines is mostly 3 to 5cm, the crossed lines about 2cm. Not one line is longer;
7. the lines are thick, their width is about 3 mm and space between each line is about 3.5mm. The width of 3 or 4 lines together is about 2-3 cm;
8. the lines are dark blue.

C- The purpose of the tattoos

In the article of L Dorfer, M Moser et Al⁽¹⁾, they believed that the tattoos on prehistoric human mummies can be defined as two types: decorative with aesthetic value, and non-ornamental tattoos with simple lines or circles which may have "therapeutic importance". Based on such assumptions, they imagine the tattoos of the iceman could be related to acupuncture.

Broadly speaking we can agree that the Iceman's tattoos are non-ornamental but we disagree that such non-ornamental tattoos must be for a practical function. From the angle of anthropology, however, the symbolic significance of the tattoo (ornamental or non-ornamental) could be found in any number of reasons. For instance,

1. Witchcraft. Primitive witchcraft was very common in that era. We do not know every tattoo used for which possible reason in witchcraft, and what shape of tattoo was especially for a particular purpose. Anthropologists did much research on African nations⁽¹⁰⁾ and the Maori race⁽¹¹⁾ etc., we can see how complex some designs were but some were simple; each had a different aim.
2. Symbolic. A special secret mark could be for a special group to identify it from another. "Moko was a sign of distinction; it told off the noble and freeman from the slave."⁽¹²⁾ This is the original wording of the quotation (sic!). In China one of the reasons for the tattoos (points, lines etc.) on women of the Li nation was so that her ancestors could recognise her when she died and therefore she would be not be lonely in the next world.
3. To record some special achievements or some memorable affairs such as how many dangerous animals or enemies were killed by him: more marks denoting braver and more skilful in battle. Roberts say: "A.W. Buckland thinks the tattooed mark on the chin almost always denotes marriage."⁽¹³⁾
4. The marks of treatment or illness. In the article of Dr Dorfer et Al a few works were mentioned; ⁽¹⁾ Gudrun Sulzenbacher also thought regarding the Iceman "By cutting through fine nerves, pain could be alleviated."⁽⁹⁾
5. To make the body stronger. Shigehisa Kuriyama quotes from the Hippocratic author of *Airs, Waters, Places* that "For owing to their moistness and flabbiness the have not the strength either to draw a bow or to throw a javelin from the shoulder. But when they have been cauterised, the excess moisture dries up from their joints, and their bodies become more braced, more nourished and better articulated." The cautery is actually a kind of tattoo. Kuriyama describes that the Scythians cauterise themselves on the arms, wrists,

breast, hips, and loins; cautery dries the joints, articulates the body, marks it firm. Cautery is a form of bodybuilding⁽¹⁴⁾.

6. We recently saw a picture with lines on the face for an advertisement of Nastro Azzurro, a kind of spring drink. We could not imagine why those lines were drawn on the face, similar to acupuncture lines, but they are definitely not for acupuncture. In a museum in Paris, the Musée de l'Homme, we found some ancient tattoos with similar lines but no-one knows their significance.

So, the reasons could differ in very many ways. We are not hazarding a guess as to the real reason for the tattoos on the Iceman. If we have to choose one, the "form of bodybuilding" seems nearer the truth of iceman's tattoos. Anyway, in this case we have difficulty agreeing that the tattoos on Iceman were for the purpose of treatment. The anatomy of the nervous system shows us that the direction of the lines of the tattoos cannot really cut through fine nerves to alleviate pain and the wounds themselves could cause serious pain. To have 59 tattoos for pain treatment is also unimaginable.

If Dr.Dorfer et Al want to prove their assumption we suggest they to do further research to exclude any other possibilities of the tattoos' significance and submit strong evidence for their imagination. Otherwise their assumption is unreliable.

D- Do the tattoos on the Iceman correspond to the classical acupuncture meridians and points ?

Tattoos could have many reasons to do as the above. If it is a special reason for acupuncture, one has to give reliable evidences. Now we check that the demonstrations of Dr Dorfer et Al are right or not.

Under the premise of the assumption Dr Dorfer et Al attempted extend their assumption as to the earliest origin of acupuncture. This is like 'arguing in a circle', its logic it is illogical and could misguide readers.

In the article, Dr Dorfer et Al intended to prove their guesswork by measuring the tattoos on the iceman and comparing them with the locations of Chinese acupuncture channels and points. They then gave a conclusion stating: "The above findings provide strong evidence that a form of medical therapeutics, very similar to what we know as Chinese acupuncture, was already in practice 5200 years ago in Central Europe"⁽¹⁴⁾. However such a conclusion is not credible.

Firstly the authors concealed the fact that Dr Dorfer actually only chose one line among 3 or 4 parallels in a tattoo group to measure. It was not indicated which line was measured. The line itself is thick (3 mm) and 3 or 4 together are thicker (30-50 mm). If it were a conventional scientific report, they should give all details of the measurements. In our opinion the line farthest out could be 30-50mm from the acupoint or channel. As the authors calculated "that his cun was about 22 mm or about an

inch"⁽¹⁵⁾, this distance of 1.5-2.5 cun is too far away from acupoints or the urinary bladder meridian.

The rationale for 3 or 4 parallel lines of tattoo should have been given but was ignored. So, we quote the following statements: "expert opinions from three acupuncture societies indicate that nine of the tattoos could be identified as being located directly on or within 6 mm of traditional acupuncture points. Two more tattoos are located on an acupuncture meridian but not close to a point. One tattoo is a local point. Three tattoos are situated between 6 mm and 13 mm from the closest acupuncture points"⁽¹⁵⁾. These statements are misjudged.

Apart from the above, we also should consider that the size of Iceman's body is much smaller than in his lifetime, as the result of the mummification process and shrinking. "At the time of his death, it was calculated that he measured around 160 centimetres... however today... only 153 centimetres"⁽¹⁶⁾. Ignoring those facts of dehydration means the distances which were measured by Dr Dorfer are different from those of the live body. To discuss the distance between tattoos and the acupoints or meridians according to incorrect measuring criteria is nonsensical. In this case we cannot substantiate that the tattoos were very near the locations of Chinese acupoints or meridians.

Secondly all tattoos are in several groups. Most groups each have 2, 3 or 4 parallel tattoos. In another two places the tattoo is a cross. These shapes have never appeared in Chinese acupuncture. Chinese acupuncture has 14 long meridians linking the body to four limbs and approximately 365 points distributed over the whole body, but there are not any short parallel lines grouped together in a small area. Without an outline of such an acupuncture system to compare with the Iceman's tattoos, the conclusion must be wrong. In other words, the tattoos on the Iceman are not similar to Chinese acupuncture.

Thirdly, the authors believed that "there are other tattoo points... most are located on the gall bladder, spleen, or liver meridians. These points are used when a patient has abdominal disorders. Recent findings revealed numerous eggs of whipworms in the iceman's colon. This would no doubt have affected his abdominal function as speculated by Capasso"⁽¹⁴⁾. We can assume their speculation is correct but we have to ask: why are the tattoos only on the back but not one on the abdomen? As we know, many acupoints of Chinese acupuncture are on the abdomen and affect abdominal function much more than back points. If the tattoos on Iceman were for treatment similar to Chinese acupuncture, those abdominal points would have been more accessible and easier for iceman himself or another person to do.

More importantly, the assumption that points were chosen from the gall bladder, spleen or liver meridians for digestive problems for the Iceman is anachronistic; the choice would have to be done according to the

theory of acupuncture which was only formulated in the medical canon Huangdi Neijing (Yellow Emperor's Canon of Internal Medicine) in China about 2nd century BC. No evidence exists that there was such a theory 5200 years ago anywhere. The theory of acupuncture is particular to Chinese medical culture and is totally different from western medical theory. Also, as we know, any theory derives from facts and experience over a long period of time. One common problem in research into the history of medicine is to project contemporary knowledge onto ancient situations, thus this supposition arises from a basic lack of knowledge of the chronology of the history of acupuncture.

Fourthly, there are 59 tattoos on iceman's body. As a strong young man, with the appearance of a warrior, did he need so many treatments for pain? Or did he at one time need 59 areas to be incised? Even now we do not often use 59 points for a treatment and cutting into skin is more serious than needling. People perhaps image the tattoos of Iceman because it could be as a model for other patients to be like the copper models of acupuncture in ancient China, but it is unbelievable. We do not think a burly chap, a strong soldier would to be. Anyhow, if 59 tattoos cannot be explained by the reason for acupuncture, the anthropologists should search another causes in this case.

E- The origin of acupuncture

There are not any records of acupuncture in ancient civilizations except in China. Neighbouring countries learnt acupuncture from China quite early, but acupuncture was not their own invention; this includes Japan, Korea etc. Western and Arabian countries heard information concerning acupuncture only about 350 years ago and acupuncture became popular in the West only during last 30 years.

To do research of the origin for anything one has to investigate the tradition and the cultural background. However, we cannot find anything similar to acupuncture mentioned in the ancient documents of Europe, Arab, Egypt, Babylon and India, etc. If acupuncture had appeared and been effective in these areas, it should have been recorded even if only mentioned in one word. No such tradition of acupuncture therapy can be discovered before Chinese acupuncture was transmitted into other countries. History always has own coherence that is tradition. There are two total different traditions between China and the West because their medical cultural background differs greatly.

The origin of acupuncture only can be discussed within the context of its own tradition and cultural background, as it appeared in ancient China. The origin of Chinese medicine including acupuncture has been discussed in the book *A History of Medicine in Chinese Culture*,⁽¹⁷⁾ but here we would like to summarize some important points.

1. With the appearance of primitive humans, the earliest medical activities began, which were similar to animal

instincts. Humans developed them through the accumulation of experience and intellectualisation of experiences, after which real human medicine began. The therapy of Bian Shi (sharp stones) is one of the treatment methods of the Chinese Neolithic Age before acupuncture. Chinese people had used the sharp stones like a knife or needle to cut or insert into skin for treatment but this was not genuine acupuncture. Acupuncture cannot be simply defined as the insertion of solid needles into the body. Acupuncture synthesizes a skill for treatment of diseases using the insertion of solid needles under the guidance of theory.

2. Dr Bian Que (5th century BC) and Cang Gong (? 215-140 BC) used acupuncture, the facts which were recorded in their biographies in Shi Ji. Their era was at the time when the theory of Chinese medicine was forming. The Huangdi Neijing medical canon described the whole system of theory and acupuncture. The manuscripts found in the 2nd century tombs of Mawangdui and Zhangjiashan show the more primitive features of acupuncture before the Huangdi Neijing. Henceforth records of acupuncture proliferated continuously in China up to today.
3. Acupuncture, its channels, points, skills and theory represent a very special system that is totally different from the western medical system. Acupuncture is a creation of Chinese culture. Without ancient Chinese natural philosophy the theory and system of acupuncture could not have been formed. That is why acupuncture could only appear in China but not in other cultures.

F- Conclusion

1. There is no clear evidence to explain why the tattoos on the Iceman. If it could be marks that were left by ancient medical activities of the Neolithic Age but they are more likely to have been left by superstitious witchcraft practices.
2. The tattoos on the Iceman are not marks of acupuncture points or channels. Dr Dorfer's measurements are unreliable, implausible and their speculated conclusion cannot be acknowledged.
3. Not any scientific evidence proves the origin of acupuncture outside China. Not any acupuncture record can be found in central Europe or another area before Chinese acupuncture was transmitted. "The possibility of acupuncture having originated in the Eurasian continent at least 2000 years earlier than previously recognised"⁽¹⁵⁾ is only a supposition of Dr Dorfer et Al without any scientific or historical evidence.
4. A supposition without scientific evidence should not continue to be disseminated any longer.

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