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An Oriental Physician's Views and Thoughts on the Global Prevalence of Lumbar Spondylosis – The traditional shoulder-carrying culture and traditional spine of a large eastern country are disappearing silently

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Abstract

Over the past six years, the author contacted approximately 100,000 people. Also, the author visited shoulder-bearers in the streets, alleys, and fields to investigate and discuss lumbar spine-related issues. For this reason, the author focused on exploring the differences between the Oriental and Western spines, and the difference between Oriental labor and western sports. Based on personal opinions, speculations, and reflection from years of research on the traditional Oriental shoulder-carrying culture, the traditional Chinese spine, and my own experience, the result seems to be that the modern medical community has little or no knowledge of the Oriental spine. Later, with the disappearance of the shoulder-carrying culture, the benign signs of the spine without traditional shoulder-carrying exercises can only be reflected after a certain period, and they live a life similar to those in the West. This spine is actually a standard westernized spine. Conclusion: our country should re-study the traditional spine of the Chinese nation, and restore the traditional manual labor, especially the traditional shouldering culture is very important for the survival and great rejuvenation of the Chinese nation, also for all the people in the world, with respect to human health, civilization, and generations. The relationship between human health and civilizational impact is obvious, also in terms of generations.

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Background

Thanks for your interest in China's health issues over the years. Hope you may be concerned about China's prevalence of lumbar spondylosis among young people.

Recently, a paragraph was forwarded and went viral online, causing great panic for a time: "Lancet, a leading medical journal, recently published an article and wrote that lumbago has become a major global challenge." The data showed that the number of patients with lumbar spondylosis in China had exceeded 200 million, and the disease becomes prevalent among young people. Once people have lumbar spondylosis, they will suffer pain, affecting their work and life. From 1990 to 2015, there was a 54% increase in low back pain worldwide, with an estimated 540 million people worldwide suffering from this disease. Low back pain has become a global challenge. In China, there were more than 200 million patients with lumbar spondylosis. Although the source has not been found, this data is not sensational. As we all know, low back pain is a medical-sociological problem, which easily leads to a high rate of labor loss and huge material losses; the problem has a high prevalence, especially in industrialized countries. In China, lumbar spondylosis prevails among people of younger age, implying that China has made remarkable progress in industrialization.

Discussion

1. Why could the adult labor force in China 40 years ago carry a hundred pounds on their shoulders, whereas now lumbar spondylosis prevails among young people in China? I think this is related to the traditional Chinese shoulder-carrying culture (referred to as shoulder-carrying culture) and the disappearance of the traditional spine.

What are the Chinese traditional shoulder-carrying culture and traditional spine?

Due to undeveloped technology, backward tools, poor transportation, poor living environment, and insufficient draught animals in the past thousand years, part of the heavy "burdens" of transportation works and farming labor fell on the shoulders of most of the Chinese ancestors, resulting in the unique shoulder-carrying culture of China, but also in the unique spine of the Chinese nation. The shoulder-carrying culture is the core of the Chinese farming labor culture. Shoulder-carrying exercises should be carried out by every Chinese child since their childhood. Shoulder exercise could guarantee that the whole nation has a steady source of labor resources for thousands of years, guarantee good physical quality and strong survival ability, and guarantee that the whole nation has strong willpower. In traditional culture, the human spine is called the keel, celestial ladder, and celestial pillar, because the Chinese nation is the descendant of the dragon. In traditional Chinese medicine, the spine is called the backbone, for it is the best way to show a person's spirit. If there is a problem with the spine, there will be a great impact on the internal organs. Therefore, the spine is also known as the "second Lifeline of the Human Body" and is closely related to physical health. The Chinese nation is characterized by lifelong heavy labor, which is fundamentally different from the non-shouldered spine of Western countries.

Born in the 1970s, the author is one of the last generations in China to be influenced by the shoulder-carrying culture. I lived through China's farming era and the era of reform and opening up. I was trained to carry a hundred pounds on my

shoulder from a young age. After graduating from medical school in the 1990s, the author worked as an orthopedic and neurosurgeon for six years, and in emergency surgery for 18 years, so I have rich clinical experience. As a sports enthusiast, I study Iyengar yoga, frequently participate in outdoor sports, and get to know a lot of outdoor sports enthusiasts. Early on I found a very interesting phenomenon: outdoor sports enthusiasts are composed of people born before the 1970s who have been affected by the shoulder-carrying culture, while there are few people born after the 1980s who have not been affected by the shoulder culture. Also, I often meet many hard-working shoulder-carrying farmers outdoors. Later, I joined a medical examination center as a chief surgical physician and had more access to traditional Oriental spines. For this reason, I focused on exploring the differences between the Oriental and Western spines. Based on personal opinions, speculations, and reflections from years of research on the traditional Oriental shoulder-carrying culture, the traditional Chinese spine, and my own experience, I hope to draw the attention of global scientists to study this research field.

Since the author joined Health Management Center, Taizhou Hospital in 2017 as a chief surgical physician, I have been concerned about the research on the etiology of China's lumbar spondylosis because it has affected our family, friends, and colleagues. There is a popular self-deprecating joke in China, saying that some people are not outstanding in their school attainment, work performance, or physical appearance but suffer from lumbar disc herniation. I have frequent discussions with people who care about lumbar health. I began to reflect on why the adult labor force in China 40 years ago could carry a hundred pounds on their shoulders, whereas now lumbar spondylosis prevails among young people in China. The older generation is still strong enough to work in the field with heavy loads. However, the older generation does not understand why they were so energetic when they were young, whereas their descendants have lumbar spondylosis at a young age without doing any physical work. Besides, some young people go to the hospital for long-term low back pain, but the diagnosis shows a normal, standard spine. To find the answer, I focus on the lumbar spine of those who have engaged in farming and carried heavy loads on their shoulders during their physical examinations. Also, I visit shoulder-bearers in the streets, alleys, and fields to investigate and discuss lumbar spine-related issues.

Through 6 years of unremitting efforts, I have made progress in the research on the traditional Chinese spine. Previously, the world medical science confused the Oriental spine with the standard spine in Western medicine textbooks, yet there are stark differences between them. Research in this academic field is still blank in the world. Occasionally, the author becomes the first discoverer and researcher in this field. It is the historical mission of China to sort out its national heritage, and it is the duty and obligation of every Chinese to fulfill the historical mission.

The traditional Chinese spine was born under the traditional shoulder-carrying culture of the Chinese nation and will disappear with its demise. Today, shoulder-carrying skills can be called an intangible cultural heritage. The skill may disappear within a decade and is now on the verge of extinction. Only those elderly people have maintained the shoulder-carrying tradition, meaning that fewer and fewer people have the traditional Chinese spine. Unfortunately, the modern medical community has little or no knowledge of the structure, physiology, and kinematics of the spine, leading to huge losses.

For six years, many people thought this research was impossible. Despite countless setbacks, I almost gave up, but

“when one doubts whether there is a way out from the endless mountains and rivers, one suddenly finds a village shaded in soft willows and bright flowers”. My heartfelt thanks go to many people for their great support, understanding, encouragement, and help during the research period, which helps me constantly get out of setbacks. Due to my limited English skills, this article was translated by a professional translator. Without the help of translation tools, I can't even comprehend the English content myself. Because of cultural clashes, it's hard to convey the accurate essence of Chinese traditional culture in English. Additionally, there are inevitably shortcomings in the present research because of my academic knowledge constraints. The views and thoughts in this article are only personal ones, which I will share with you.

2. Now everyone is thinking about this question:

Most middle-aged and elderly patients with lumbar spondylosis aged 40-60 years have experienced the farming era, and most of them have suffered from injuries during productive labor or degeneration of the spine in old age. It is well known that most old farmers who have worked hard on their shoulders in the countryside all their lives rarely suffer from lumbar spondylosis in old age as long as they do not overwork, do not have accidents, and maintain a traditional lifestyle. In reality, many long-lived seniors maintain their traditional shoulder-carrying lifestyle. Although they have been weathered for the first half of their lives, they are now in good health, and their fertility rate is high.

We can still notice several old men who have farmed all their lives in the countryside. Their lumbar and thoracic vertebrae are bent at approximately 90 degrees, but they can take care of themselves and ride three-wheeled bicycles fast. Strangely enough, they can still engage in shoulder labor to earn their living. For a long time, in the agricultural society with underdeveloped medical treatment, many people who seem to suffer from spinal deformity did not lose the ability of shoulder-carrying labor, and clinically encounter heavy compression fractures of the lumbar spine without nerve compression. They went home and rested on hard beds for three months before resuming a lifetime of shoulder-carrying labor. For decades, it becomes a mystery.

3. From my point of view, unfortunately, the modern medical community has little or no knowledge of the structure, physiology, and kinematics of the spine, leading to huge losses. Later, with the disappearance of shoulder-carrying culture, the benign signs of the spine without traditional shoulder-carrying exercises can only be reflected after a certain period, this spine is actually a standard westernized spine.

Since the introduction of Western medicine into China in the 19th century, China has developed its medical science and technology at a rapid pace. Despite the clinical and basic research ideas, Chinese medical scientists still have not found that there are obvious differences between Oriental and Western spines in all aspects, have not established the spinal standard that conforms to the Chinese people's nationality, and continue to use the Western spinal standard for diagnosis and measurement of the traditional Chinese spine, resulting in misunderstanding, misdiagnosis, and mistreatment of the traditional Chinese spine. Later, with the disappearance of shoulder-carrying culture, the benign signs of the spine without traditional shoulder-carrying exercises can only be reflected after a certain period. This also brings confusion that “40 years ago, a Chinese adult labor force could carry a hundred pounds on these shoulders, but now lumbar spondylosis prevails among the young people in China”. This question has been proposed for a long time, but no one can answer it.

Forty years ago (the year 1980), China was still a largely agricultural country with the world's largest agricultural population; each strong workforce could carry a hundred pounds of items on their shoulders and walk dozens of miles. Since the 5,000 years of Chinese farming civilization, our predecessors had worked on their shoulders until their last breath. After the reform and opening up, China gradually entered an industrialized stage. One objective realization is that, due to technological advances, lumbar spondylosis becomes a prevalent disease among young people in China after giving up the traditional shoulder-carrying culture, and there is even a hidden fear that no one could engage in farming. This has been closely related to a sharp rise in infertile couples in China in recent years, a factor in the country's declining birth rate. Lumbar spondylosis is closely linked to various diseases, like dominoes, leading to a decline in the health of the Chinese population.

4. The year 1980 marked an important turning point at the end of Chinese traditional shoulder-carrying education and training, marked by the disappearance of the "shoulder pole", the symbol of Chinese civilization. Slowly, Chinese people became divided into three kinds of people: those who continue to work on their shoulders, those who have shouldered heavy objects, and those who do not shoulder heavy items. History let them live together for a period of time, forming a cultural landscape.

Over the past six years, the author has contacted approximately 100,000 people ranging in age from 1-100 years old, male and female, Oriental and Western, and of all ethnic groups. The author divides them into two generations based on whether they have received Chinese traditional shoulder-carrying culture education. Since the reform and opening up, China has gradually entered the era of industrialization and agricultural mechanization. After a history of 5,000 years, the Chinese shoulder-carrying culture is disappearing. In this process of development and labor transition, the year 1980 marked an important turning point at the end of Chinese traditional shoulder-carrying education and training, marked by the disappearance of the "shoulder pole", the symbol of Chinese civilization. Young people who grew up in the East are used to the wobbly shoulder pole of an old man, but it was a folk tool that amazed Western scientists, who marveled at the Oriental wisdom. In daily life and production, Chinese people often used the shoulder pole to carry and transport things, with a history of 10,000 years. As we all know, there are Taishan porters in North China and Chongqing Bangbangs in Southwestern China. Both Taishan porters and Chongqing Bangbangs are a unique group who emerged from the traditional Chinese shoulder-carrying culture. In modern times and with the rapid economic development of the present, this group is fulfilling its final historical mission. China's shoulder-carrying culture is about to become a memory.

The post-80s do not shoulder heavy items, and now most of those who have shouldered heavy things are the post-70s. The post-70s could carry a hundred pounds on their shoulders when they were young, and continued to do so for decades. Despite the difficult conditions and privations, the post-70s never stopped shouldering items due to waist problems when they were young. They sometimes had back pain, rested for a few days, ate brown sugar or drank old wine, chicken tea, and other supplements, applied medicated plaster, or took drugs for traumatic injuries such as pseudo-ginseng and Yunnan Baiyao, or sometimes rest overnight to regain their shoulder picking ability the next day. They used to have the traditional spine of the Chinese people with miraculous recovery ability, which is proud of the Chinese shoulder-carrying spirit. Some people got lumbar disc herniation due to strain and injury, which is called sciatica in

folklore. They sought medical help and received osteopathic treatment with massage. Some were able to recover their shoulder-carrying ability after treatment. At present, this magic may have been lost or failed. In those days when people survived and worked by shoulder-carrying, and earned money by waist strength, people with lumbar diseases were considered disabled. There are definitely people who have lumbar spondylosis, but there are not too many, despite no statistics. As modern living conditions get improved, many of the post-70s have given up the shoulder-carrying work for many years, and also live a life similar to those in the West in the post-80s. Most people put on weight. Their spine has been deformed, and that is irreversible, similar to the Western spine. Those people can't continue to work on their shoulders again. In physical examination for five years, the traditional spine or Westernized spine can be determined from the body shape and palpation, and the traditional spine is becoming less and less frequent. This may be one of the major reasons for the prevalence of lumbar spondylosis in China today.

Only a very few people maintain their traditional life, and they are over 60 years old (post-60s). Those old people continue to work on their shoulders. Only they have the primitive, unique body type of the East, with the traditional spine of the Chinese nation. Due to the rapid growth of modern society, people with this primitive body type and traditional spine are getting older and fewer in the world. They spend their lives with their backs on the earth and keep working on their shoulders until they die. Because of their good health, they never go to the hospital for treatment, and few people study and care about their spinal condition. Coupled with poor medical skills, there is a gap in research related to the structure and function of the traditional spine and morbidity in this group. Some people ask online why the post-50s and post-60s had many children in China, in stark contrast to the current precipitous decline in the birth rate. Opinions vary greatly. A very important factor is overlooked – China was in the era of shoulder labor in the 1950s and 1960s. Fertility, undoubtedly, also somewhat reflects the condition of the spine.

Thanks to Florian Kuttner (Diplom Buckinghamshire New University, United Kingdom) for leaving comments on my ResearchGate article on the East-West spine recently.

I encourage and welcome anyone interested in sharing their thoughts to do so. I have been observing the state of the lumbar spine in western and eastern people for more than ten years in my practical work. I have also been a practitioner of wushu and taiji for more than 15 years, also with competition experience.

So, from this point of view, I shared some observations regarding the advantage of the weight-bearing of the lumbar spine in Asian countries/people.

However, from my point of view, it has nothing to do with people or race – society and habits are the main factors that are influencing people's posture.

Also, thanks to Rana Abhyendra Singh (Master of Arts, South Asian University, New Delhi, India) who added a reply to my ResearchGate article: Chen Huabin In Chinese traditional culture. Shoulder-carrying refers to the practice of carrying heavy objects, often with the use of a shoulder pole. This practice has been used for centuries in China as a means of transportation and work, particularly in rural areas. Traditional spine in Chinese culture refers to the concept of maintaining a straight and upright posture. In traditional Chinese medicine, a straight spine is believed to be essential for good health

and longevity. In addition, a straight spine is associated with inner strength, discipline, and self-control in traditional Chinese philosophy. The cultivation of a straight spine is often emphasized in practices such as tai chi, qigong, and meditation.

Thanks so much, Stephen I. TERNYIK's (Magister Artium (double major with a thesis in applied informatics*summa cum laude); Master Certifications (Management) Economic Research Analyst, Vienna, Austria) for your comment: Interesting topic, with respect to human health, civilization, and generations. The relationship between human health and civilizational impact is obvious, also in terms of generations.

I invite all of you to see my research.

For centuries, the Western spine has been frequently studied in modern medicine. Westerners are not a shoulder-carrying nation, with good lumbar spine mobility, poor stability, and a high incidence of spinal spondylosis; the Western exercise patterns are dominated by sports. Generally speaking, the traditional Chinese spine is characterized by poor lumbar spine mobility, good stability, and a low incidence of spinal spondylosis; the lifelong labor patterns include laborers swinging their arms, raising hoes, or shouldering items. On the surface, Chinese people always shouldered heavy objects and formed the habit of walking with their heads down and chest in, the spine is arched, and the weight is tilted forward to the arch of the foot, while Europeans and Americans all walked with their heads high. The spine is recurved, and the center of gravity is tilted back to the heel.

The anatomy of the traditional Chinese spine is the same as that in the West, but they differ in biomechanical features and physiological curvature, as well as the connection and support of the spine. The traditional Chinese spine is S-shaped with a forward center of gravity and an ape-like physical appearance, it's an S-shaped bow. The traditional Chinese spine does not exist in isolation. It is closely linked and interdependent with the thoracic and abdominal air column formed by the adduction of the transversus abdominis muscle in front of the spine. Even in a relaxed state without any load, the body is slightly forward and the transversus abdominis is slightly adducted, which is called "Mingmen" (gate of vitality) and "Dantian" (elixir field) in traditional Chinese medicine. The effective combination of the two produces "force" and "transmitting force from the waist". A person with good strength is known as "a person of the tiger back and bear waist". History proves that this is the most ideal and scientific physiological structure of the spine. Through the ingenious use of the "pneumatic tire principle", a man can easily carry a hundred pounds on his shoulder, even heavier than his body weight in complex terrain such as high mountains. They could walk a hundred miles, easily, year after year, day after day. They have existed in the world for ten thousand years in a state of good lumbar spine stability and greater load capacity, effectively compensating for the biological weakness of lumbar curvature. Many ancestors of the Chinese nation can shoulder over 300 pounds, which is not only the basis of ancient Chinese martial arts and the root of the Chinese nation's prosperity, but also the secret of the Chinese people who have kept their lifelong shoulder labor, and the reason why the Chinese people have not developed Western sports for thousands of years. On the other hand, it can also explain why the Han people were not good at singing and dancing in ancient times.

Epilogue

In ancient times, the Chinese character “ ” was created with the meaning of laboring with great physical strength. The ancient Chinese tradition will never be useless or outdated, and it will only be lost or disappear. What is outdated is our vision and thinking. As today’s traditional Chinese shoulder-carrying culture disappears rapidly, people who dedicate their lives to shoulder-carrying work are expected to disappear within a decade or so. The traditional Chinese spine forms an important and indispensable part of global medical research on the spine. Any period of medical history without a study of the traditional Chinese spine would be incomplete, if not erroneous.

In modern medicine, its fixation on the inherently problematic Western spine as the standard has contributed to today’s global prevalence of lumbar spondylosis. More terribly, the “S”-shaped aesthetics in the West is packaged as advanced aesthetics, which affects people all over the world at the cognitive level. In some countries, the pursuit of extreme beauty will turn into abnormal beauty; in other countries, western sports, which bring a lot of sports injuries, are regarded as correct activities that are gradually carried out in the process of human development to consciously cultivate physical fitness. They are widely accepted and admired. They are even combined with politics, economy, and art, and are crazily pursued by teenagers in various countries. Therefore, it is urgent to re-examine and re-evaluate the traditional spine, the traditional aesthetics, as well as the difference between Oriental labor and western sports.

Unfortunately, the best time for research has been lost, leaving little time for the world’s medical research on the traditional Chinese spine. Therefore, I call on scientists all over the world for a review of the world standard spine and collaborative research to address the growing global problem of spinal diseases.

Our country should re-study the traditional spine of the Chinese nation, and restore the traditional manual labor, especially the traditional shouldering culture is very important for the survival and great rejuvenation of the Chinese nation, as well as for all the people in the world.

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