ABSTRACT
Subtle changes have occurred in China, and interventional radiology has gradually become an independent specialty, separated from diagnostic radiology. This has been called “Interventionology”, “interventional medicine (IM)”, or simply Intervention by our team, and “Interventional Radiology” is used no more. It has even been given the name “Third clinical Medicine” by us. Chinese intervention has established an independent association for interventional doctors, as well as independent interventional societies in many provinces. The national interventional society will likely be set up at some point in time. Chinese intervention has set up their own clinical wards, with much attention paid to a clinical, professional, and normalized direction for development, and established special nursing units. According to us, turf battle is meaningless. “The Third clinical Medicine” belongs to all human beings. It could also be predicted that interventional history will follow the same evolutionary rule as other disciplines, i.e., “long divided, must unite; long united, must divide”.

Keywords: Interventional radiology; interventional medicine; third clinical Medicine; independent department of interventional medicine; turf battle

A. Name of Intervention medicine
Controversy has always existed about the naming of “Interventional diagnostic radiology” (1), since Margulis used this term for the minimally invasive surgery or intravascular treatment developed by Charles Dotter. Even after Wallace changed this name to “interventional radiology (IR)” (2), Dotter was still not enthusiastic about the term “interventional,” calling it imperfect. His main reservation about the term was the lack of a proper definition of the field. He believed that this term leads to confusion about our specialty among the lay public and many physicians (3).

Similar controversy existed when “IR” was translated into Chinese.

The problem is that it would be very difficult to change the term after it has been used for such a long time. Therefore, this dispute may be meaningless.

However, subtle changes have already occurred in China. IR has gradually become an independent field in China, separated from its matrix-radiology. It is called “Interventional medicine (IM)”, “Interventionology”, or “Intervention”.

Due to the great superiority of IM, it is welcomed by internal and surgical medicine. Doctors in many sub-specialities of internal medicine and surgeons have embraced interventional jobs actively, which helps “IM” development significantly.

IM has become an essential part of internal and surgical medicine. Many specialties could not thrive without IM, e.g. cardiology, vascular surgery, neurology, or neurosurgery.

Therefore, it is my opinion that the status and advantages of IM should be recognized in medical history. IM with a history of decades could be recognized as “Third clinical Medicine”, as internal medicine with a history of thousands years, and surgical medicine of hundreds years are referred to as “First medicine” and “Second medicine”, respectively.

B. Characteristics of Chinese intervention
Important characteristics have already been reflected in Chinese IM.

Chinese intervention expresses an obvious tendency to be separated from the Diagnostic imaging department, setting up its own independent department because both specialties have different development directions. They have their own wards to assume clinical responsibility for out-patients and in-patients, as Doctor Dotter said.

An independent interventionalist association has been created. Independent interventional societies have appeared in many provinces. We believe that the national interventional society will be set up at some point in time.

Chinese interventional doctors are aware of the fact that IM branches have become increasingly exquisite that even more systems or diseases could be treated by this field; therefore, steps have been taken to design standards for each interventional branch.

Chinese interventional doctors have developed personalized and painless interventions, considering of the unique needs of each patient.

Chinese intervention has established nursing units of their own, as well as independent interventional nursing events. The patients’ mental needs are also taken care of.
The above mentioned development is unique to China. Chinese interventional doctors believe that a better interventional enterprise could be built.

C. About turf battle

Turf battle has been widely discussed in Western countries. Dieter R. Ennmann described it in an article (4) as “No radiology meeting would be complete these days without discussion of turf battles”. The same situation exists in China.

In my opinion, such a debate is meaningless for the following reasons:

1. From the history of IR, although Dotter invented angioplasty, his coaxial catheterization was not widely accepted until Gruentzig developed the balloon catheter, especially when a narrowed coronary artery needed dilation. Since Gruentzig is a cardiologist, nobody could stop him from introducing such an operation into the cardiology department.

Now, it is Juan C. Parodi, a thoracic surgeon, who invited interventional doctor Palmaz to study and use stent graph for abdominal aortic aneurysm. Is that really a turf battle between them?

2. From the view of personnel establishment, most radiologists don’t like to perform the IR procedure. How can a few radiologists undertake all IR procedures?

Besides, patients won’t ask the “photographer” to operate them, because they are not specialists. It is certain the “right in intervention” will be lost.

3. From an ethical view, good therapy ought to be learnt by all doctors. We don’t have enough reasons against others to perform interventions.

4. Science is without borders, and we can’t set barriers between disciplines for any cause. As a great scientist Madame Curie once said: “People working for the happiness of others, no matter which field he or she is in, can’t be blocked by his nationality. Their achievements belong not only to one nation, but also to the entire human kind”.

Actually, in 1968, Dotter predicted our present predicament (3): “If we don’t assume clinical responsibility for our patients, we will face forfeiture of our territorial rights based solely on imaging equipment others can obtain and skills others can learn.”

Unfortunately, this became a reality.

I have different opinions from other interventional doctors. This might be due to my background as a surgeon for 12 years. During the 1960s, I performed cerebral angiography by carotid puncture and percutaneous cholangiography. At that time, radiologists were only responsible for diagnostic tasks rather than to perform interventional procedures. This may also explain why it is easy for me to welcome surgeons to practice interventional works.

However, I belong to interventional radiologists. I sympathize with our colleagues. So, I usually say: “I belong to intervention, but intervention doesn’t belong to me”. In my opinion, it plays a minor role who does it or who is in charge of it as long as IM grows.

Intervention is “the Third clinical Medicine” and belongs to all humans forever.

I predict that interventional history will follow the same rule as other disciplines, i.e., “long divided, must unite; long united, must divide”.

If intervention is currently divided into other branches, following the cyclic science pattern, it will be integrated someday in the future.

D. What to do in the future

1. To develop IM, we need to separate from the radiology department and develop independently and sufficiently. Doctors from other departments are welcome to join us as interventional doctors. IM is our orientation and will be finally formed just as internal medicine and surgery. This will be beneficial to both the patients and our medical development.

2. We do hope the association of interventional doctors could take care of this, designing qualification standards for interventional doctors as well as discipline standards. This would prevent anyone from operating without meeting the criteria or any unqualified doctor to do so.

Any operation not meeting criteria or performed by unqualified doctors should be banned.

3. The independent interventional society should be established and reinforced. Independent interventional departments should be set up in most large hospitals, and the interventional department should be clinical, professional, and normalized, with humane construction. We should design guide and standards which accord with the China’s national condition.

4. Bring the interventional discipline into the hall of higher medical education. Medical students should be aware of intervention and which therapy is minimally invasive, safe, efficient, convenient, fast, economic, and less painful, with small-wounds, rapid recovery, repeatability, reduced complications, low death rates, and reduced effects on other treatments. On the other hand, it could be combined with internal and surgical medicine.

This is an “all-pervasive, almighty and irreplaceable” therapy called “the Third clinical Medicine”.

5. New generation interventional doctors should have exploration and innovation skills. They should master not only catheters and guide wires but also surgical knives and the endoscope.

They should dare to challenge the existing methods and theories to pursue new and better ones to replace the former.

We should catch up the progress of “the fourth industrial revolution-intelligent age”. This means we should develop new interventional robots, which range from elementary to top level instead of an immature robot.

6. Undertaking the responsibility of a great nation. China
is considered a great nation, although its GDP remains low in average. We have received worldwide help in the past. We need to express our gratitude and keep studying to follow such examples. From now on, we should provide feedback to the world. And it is necessary for us to help less fortunate nations and peoples.

We should make due contributions to intervention worldwide, but not guiding the world. We must overcome the psychological barrier depicting our nation as a weak and poor country as thought for one hundred years, and abandon wrongdoings as people with low wealth.

Let us stand tall for the Third clinical Medicine worldwide with a modest, struggling, kind and healthy mentality.

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