

Dr. Hui Li—thoracic surgeon in Beijing Chao-Yang Hospital: a good doctor is a master of his scalpel and his thoughts

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Editor's note

The higher we are, the further we see. From a different angle, we may view the world in a different way. Sometimes, we are unaware that a tiny event can influence a person so deeply that his life would be changed due to it; and that a “big discovery” might in fact have been long known to counterparts in the field. No matter who you ask, a friend, a tutor, a colleague, or a student, they will ask you something they have always wondered. It seems as though we live in a world with a vastness of unknowns and it is a fascinating process to discover them by seeing things from different angles.

In this article, we will share some stories of our pioneers in the medical field who have made great contribution to the development of medicine in China, and the inspiring journey of some contemporary experts in the medical world. We begin to feel how people with common goals could work together and complete amazing things. We do hope the merits of kindness, integrity, altruism, and passion of these medical professionals can be delivered though the ancient media of words and inject strength and warmth to our hearts. Maybe that is one way to discover the beauty of the world.

Shiying Zhang, an aesthetician, once said that people at different stages of their life try to meet different needs, which are physical, intellectual, moral and aesthetic. The core of the so-called aesthetic stage is the pursuit of the beauty of life. It is exactly what Dr. Hui Li has been pursuing in his career in Beijing Chao-Yang Hospital as a thoracic surgeon.

Dr. Li has been fond of painting since childhood. He was especially interested in architectural aesthetics and would utilize his familiarity towards lines and dimensions to illustrate astonishingly sophisticated surgical atlas, and enrich the illustrations in his own medical books.

Dr. Li knows well the importance of encouragement in education, and thus seldom expresses his anger explicitly. Instead, he would hint others the correct way of doing



Figure 1 Dr. Hui Li.

things. Respectful as he is, Dr. Li even designed a questionnaire for the reading club he built to understand other members' ideas better.

He does not call himself a Christian but his experience as an overseas student in Ireland has inspired him to always bear, believe, hope and endure, as the way the Bible guides.

Dr. Li's 30-year career path as a doctor journeys through the four stages a person could experience and has made him an outstanding thoracic surgeon (*Figure 1*).

A good doctor

“If one day you are no longer a chief surgeon or you get retired, how will you expect people to remember you?”

“A good doctor will be enough.”

01

Since 2004, Dr. Li has led the team at the Department of Thoracic Surgery in Chao-Yang Hospital for 13 years.

“There seems to be some indescribable connection between me and Chao-Yang Hospital”, said Dr. Li. “I did my internship here in 1982 and found a job opportunity here as an outstanding graduate in 1984. I went overseas in 1989. Then I came back to China and worked in a few different places but in the end

somehow I ended up working in Chao-Yang Hospital again.”

Starting with only half the number of ward beds as that of today, Chao-Yang Hospital has grown into a comprehensive hospital with efficient personnel structure and the Department of Thoracic Surgery has achieved the capacity to deal with more than 1,000 medical cases per annum. Dr. Li is proud of working here and knows well the great responsibility this brings.

Due to its central location, Chao-Yang Hospital sees a wide variety of cases. For the Department of Thoracic Surgery, cases may involve disease in lungs, esophagus, mediastinum and trachea. Accordingly, there are a number of operative managements that can be applied to these diseases. For example, lung diseases may be treated with lobectomy under VATS procedure if it is diagnosed early, or lung volume reduction or lung transplantation if the cancer is in its advanced stage.

“We also come across emergency cases quite often”, added Dr. Li.

He recalled the last day of 2015, when everyone was going to finish the day and ready to embrace the beginning of a new year, there came an urgent call for group consultation for a patient with bronchial tumor. He mistakenly assumed his illness as asthma based on the symptoms such as shortness of breath and wheeze, and only came for help when it got worse.

Such a case required immediate surgical intervention as the tumor has blocked 60–70% of the trachea, allowing little space for airflow and could easily cause apnea, particularly if tracheospasm or sputum production occurred. As it was an operation on the main bronchus, the patient would not be able to breathe on his own and need the assistance of ECMO during the operation, which would be demanding for the surgeon and the anesthetist. Any error, as small as a piece of tumor tissue falling off and entering into bronchi, may cause irreversible complications.

The operation started from 9:00 pm on the new-year eve and lasted till 1:00 am the next day, which was truly a cross-year case. The surgery was successful and the patient restored his long-lost natural breath. Although Dr. Li and his team were exhausted after the surgery, the sense of achievement and satisfaction was much stronger.

“The happiness of being a surgeon is especially strong at a moment like this”, said Dr. Li.

02

Chief Nurse Ms. Liu, who has been working in the Department of Thoracic Surgery in Chao-Yang Hospital

for 22 years, can still recall the scenes where Dr. Li taking records and draw surgical illustrations after an operation.

“He just graduated. What he was asked to do was merely observe and some simple assistance during the surgery. However, I found him always noting down each step of the operation, from skin incision to suture. His note and illustrations were enjoyable to see. Even till today, I still use him as an example to advise young nurses to pick up the good habit of summarizing and contemplating, which will bring good results as time goes by.”

Dr. Li mentioned that since he is fond of painting, he has a natural sense of lines, space and perspective. *“I did not paint just for the sake of painting. I would expand the two dimensional pattern to a three dimensional structure in my head to help me imagine how would I do the surgery.”* (Figure 2).

Although nowadays Dr. Li does not illustrate each time after a case anymore, he maintains the habit of taking notes on a daily basis. From 2007, he started preparing a notebook every year to note the daily tasks he had completed on that day. This year, he is working on his 11th notebook (Figure 3).

In China, there has been significant increases in the number of new techniques and hospitals that are able to perform more than 1,000 thoracic operations per annum. However, Dr. Li pointed out that these two indicators should not be the only goals to seek. More importantly, the progress of medicine and the subject of thoracic surgery should focus on bringing benefits to patients.

He gave an example from the *N Staging of Lung Cancer* (the 8th edition) (1). The definition of the new N staging is based on 38,910 cases of clinical staging and 31,426 cases of pathological staging. Among them, Japan has contributed 59.1% and 74.7% of the cases separately. If we noticed how Japanese doctors deal with the lymph node during and after operations, we would understand why regardless of the significantly less number of operations (only 1/50 of the number of cases per annum in comparison to China), the contribution Japanese doctors have made to the international staging of lung cancer have been much greater. It is worth learning from their accurate preoperative imaging diagnosis, strict lymph node dissection during the operation (N2 and Part of N1), the standard postoperative lymph node dissection (N1) as well as the detailed record throughout the process.

“I have always believed that, diligence and earnestness is the fundamental requirement for a good doctor. We should be cautious before the operation, accurate during the operation and diligent after the operation. Young professionals should specifically note that an impeccable operation does not mean the problem is solved and we should try our best to improve the quality of life of



Figure 2 The illustration of surgery by Dr. Li.



Figure 3 Family photo of the 11 notebooks of Dr. Li.



Figure 4 Dr. Li (first on the left) attended the VTE Group Meeting.

the patients after the surgery as well.”

03

The 24th ESTS Annual Meeting was held at the end of May in 2016. Dr. Li attended the VTE Group Meeting as the only representative from China (Figure 4).

Venous thromboembolism (VTE) normally manifests itself as either deep venous thrombosis or pulmonary artery embolism, and is one of the most severe complications in surgery.

According to a single-center study of Dr. Li's research team, VTE occurred in up to 13% of thoracic surgeries. However, not enough attention has been paid to VTE in thoracic surgeries and only a few hospitals have made the prevention and treatment of VTE a compulsory item

throughout the surgical process.

Ever since Dr. Li and his team identified the significance of this critical complication, they have devoted their research and clinical practice to the prevention and treatment of VTEs. In order to create China's own database, Dr. Li has organized 10 hospitals nationwide to launch a multiple-center study. This study will provide reliable data to understand China's postoperative VTE in thoracic surgery.

ESTS used to launch a largest scale survey on thoracic surgery throughout Europe, America and Asia, among which Chinese thoracic surgeons completed more than 1,000 questionnaires. It will lay a solid foundation to the global-center prospective clinical studies and the formation of guidelines for the prevention and treatment of VET during the perioperative period.



Figure 5 One month later, there will be another award from AATS.

As a premier event in the field of thoracic surgery, AATS will have its centennial ceremony this year. During the annual meeting, Dr. Li will represent China to give a report during the VTE group meeting, introduce the prevention and treatment of VTE in China, and detail the efforts we have made and what else needs to be done in the future.

Dr. Li and academic Jie Hao have devoted years in the field of thoracic surgery and were both selected as AATS members in 2016. This year, they are invited to attend the official award ceremony.

Cardiothoracic surgeons all understand the difficulty in applying for membership in AATS. Although the organization has been around for a century, there are only about 1,200 members over the world each year. According to the requirements of AATS, a surgeon can apply for AATS membership if she/he has actively worked in the field of thoracic surgery and acquired some significant achievements. The candidate needs to have 6 sponsors. Three of them need to provide a reference letter in person and the other three need to complete a reference check for the candidate through email or telephone interview. Among the 6 sponsors, only one can be the same nationality as the candidate. Then after two rounds of screening and voting, a candidate may be accepted as a member in AATS.

“It can be considered as an award for my 30 years medical career”, said Dr. Li. *“I would like to cooperate with the other Chinese surgeons in AATS to share our work in thoracic diseases with the world (Figure 5). Also, I would like to learn from other outstanding international thoracic surgeons through this excellent organization.”*

A good teacher

“How would you like people to address you?”

“Teacher.”

“Why?”

“In comparison to chief surgeon, boss or leader, I would prefer teacher. It has nothing to do with age or position, but it is a great recognition for me.”

01

Although Dr. Li eventually chose medicine over architecture, he was in fact uncertain in his career path at the time. It was only until he officially attended his medical classes and was praised by the tutor did he start to learn about the role of a medical professional as well as the importance of encouragement in education. *“It felt like there was a flow going through my body and mind. The tutor’s encouragement empowered me and raised my confidence. It is also the main reason why I seldom got mad at my students and colleagues all these years”,* said Dr. Li.

No matter whom you ask, a medical student, a senior surgeon, a new nurse or a chief nurse, they all will tell you that Dr. Li is a person who seldom uses harsh words to anybody. *“He will not criticize or name anyone in public, although we all know who it referred to.”*

Dr. Fu, who has been working in Thoracic Department in Chao-Yang Hospital for 17 years, recalled an episode happened 8 years ago which still vividly remained in his mind. At that time, he wished to ask for some advice from Dr. Li regarding to a journal article. However due to his busy schedule, he did not check it properly, without even doing spell check. Later when he got the revised article from Dr. Li, he found that only 23 punctuations have been changed.

Dr. Fu learnt a lesson in a hard way from this anecdote. *“Dr. Li’s silent criticism made me even more ashamed of myself than if he condemned me in the face.”* From then on, whenever Dr. Fu was going to hand in anything to Dr. Li, he always checked it thoroughly and revised it multiple times in advance.

02

When Dr. Li was still a medical student, he often went forward rounds with his mentor Professor Xinzhi Weng, who was working as the chief physician in the Medical Department. Dr. Li found this experience a valuable opportunity to learn and improve.

Prof. Weng often said that there are two wrong methods of analyzing which commonly occurred in the clinical



Figure 6 Morning Ward Round at 6:50 am.

practice. One is inertial thinking, which means analyzing merely based on textbook; the other one is the tendency to ignore the basic knowledge and readily make a diagnosis of a rare disease only based on some symptoms.

Dr. Li has always kept these words in the mind.

Friday morning is the time for the routine case study meeting of the Department of Thoracic Surgery. One time, when at conclusion of discussion the decision was made to operate, Dr. Li added, “*if the conditions allowed, we could consider using SABR. There are three important articles related to SABR published recently, which is worthwhile for us to learn from. We should not stubbornly resist new techniques but instead to embrace changes.*” During another morning ward round, when everyone believed that operation was unnecessary, Dr. Li reminded the staff to keep close observation in case of any change of the disease (Figure 6).

In addition, Dr. Li is very keen to cultivate clinical thinking. He often tells his students that whenever they read an article or treat a patient, they need to go beyond reading or treating itself. They need to find out the rationale behind these treatments. For instance, why a particular article uses such analytical methods and why that patient is subject to such complication.

Dr. Zhao used to do his master degree under the supervision of Dr. Li. He is currently working in the Thoracic Department in Chao-Yang Hospital. He said that when he was a medical student, Dr. Li gave him guidance mainly, but when he officially became a doctor Dr. Li becomes much more strict and demanding.

To answer that, Dr. Li said “*Nothing is trivial when you are dealing with a patient.*”

03

Currently Dr. Li also works as a tutor for two medical

subjects, Medical Communication and Chest Trauma, at the Capital Medical University.

When asked about the impression of Dr. Li’s class, his students unanimously commented that he is a person with charisma. “*We feel lucky to learn from a person as him*”, these students are obviously impressed by their teacher and never find his classes boring.

During the first class on Chest Trauma, Dr. Li would show his students a video where the former U.S. president Ronald Reagan was shot in an assassination attempt. It would naturally lead to the subject of emergency treatment to thoracic trauma and the content of the class will go around the case by comparing the situation at that time and the method we have learnt to deal with a case like this. Sometimes, Dr. Li will start a class with suspense and only reveal the answer in the end. As one of the few female students, Dr. Song specifically highlighted the influence of this teaching method, “*it will make you cannot help to think how to become a doctor as good as Dr. Li.*”

After hearing these comments from his students, Dr. Li continued with pride, “*that is because I give my students a lot of vivid examples. For instance in Medical Communication classes, I would bring out an example of a mother-in-law testing the financial capability of his son-in-law by asking questions such as ‘how did you come to our place?’ and ‘where did you come from’. The answer to these questions will reveal if the potential son-in-law has got any car and the suburb he lives in, thus indirectly find out the economic conditions of the guy. The same strategy can be used in medical practice as well when you try to find out the budget of a patient’s family. You cannot ask ‘is your family rich or not?’ directly.*”

Dr. Li emphasized that Outpatient Department is especially a test zone for the communication ability of a doctor. He often takes his students to do outpatient service in order to let them better understand the subject of Medical Communication through practice (Figure 7).

“*When a patient comes to see a doctor, with a little conversation, the doctor should be able to identify the purpose of the patient’s visit. Once there was a patient coming in to see me. I merely needed to explain his situation to him in detail and then sent him home. I did not have to ask him to do any tests or prescribe any medicines for him. He was happy about such an economical way of clearing the air. We need to understand that patients come to the hospital with the trust to the doctors, thus if we could listen to them keenly and explain thoroughly, they would be extremely satisfied. Although the conclusion doctors would give to a patient will probably be the same, the earnest attitude of a doctor will hugely impact the satisfaction of the patient.*”

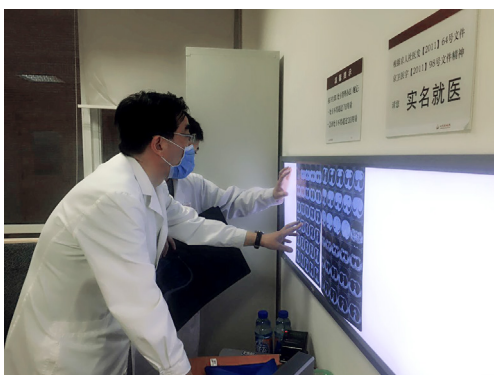


Figure 7 Dr. Li in Outpatient Service.

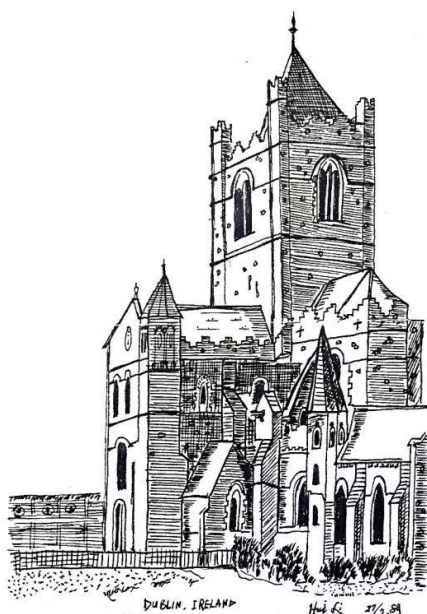


Figure 8 Dr. Li's Pen Drawing Works in Ireland in 1989.

Another point that Dr. Li did not mention but the editor has observed is that Dr. Li is very polite. To be specific, he used 67 times of honorific “you” and 19 times of “you are welcome” during our 2 hours interview. We believe that it is an essential reason for the harmonious atmosphere of his outpatient service.

A good person

“Do your students all work in the Department of Thoracic Surgery after graduation?”

“No. Some of them work in the Department of Anesthesia

or the Department of Anorectum. There are also some students working outside the medical circle after graduation.”

“What would you like to say to them mostly?”

“I hope everyone can be a good person. Whether you become a thoracic surgeon or not, a doctor or not, to be a good person is more important than how skilled you are in the career you have chosen.”

01

In July 1989, young Hui went to Ireland to do his PhD. As soon as he landed there, he surprisingly found out that Prof. Hennessy himself was there to pick him up. He was an internationally renowned esophageal surgery expert, the head of the Department of Surgery in University College Dublin. The first thing his mentor took him to do was to go and participate in a prayer ceremony in a church. The reverence for the Catholic Church and the Bible as well as the sincerity and kindness of his mentor formed the first impression of Ireland in young Hui's mind (Figure 8).

“Ireland is a Catholic country. Irish people are kind and friendly. Although I am not religious, the merits of Irish people impressed me deeply during my study time. For instance, the merit of punctuality”, said Dr. Li.

All the doctors and nurses in the Department know about the three unshakable routines of Dr. Li, i.e., 6:30 am, his arrival time to the office, 7:45 am, the time he goes to the ward and 6:50 am on every Friday, the start of the morning case study meeting of the Department of Thoracic Surgery.

“Punctuality represents the respect to the others. If you are late, in fact you will waste some time of the other party, which in fact is an act of disrespect to them.”

02

The profile picture Dr. Li chose for himself for the social media app WeChat is the cartoon character “Shin Chan”. The reason is that Dr. Li thinks the thick eyebrow of this character is similar to his. He searched one for himself as the profile picture as he does not like to trouble others unnecessarily.

As to his independence, many people have some stories to tell. Dr. Fu said, when Dr. Li moved to the new place, he would even do the bedding for himself. Last year, in order to let his fellow students better understand their peers' work, he spent one year in leading his team to visit and study in three hospitals. Dr. Li believes that it is very

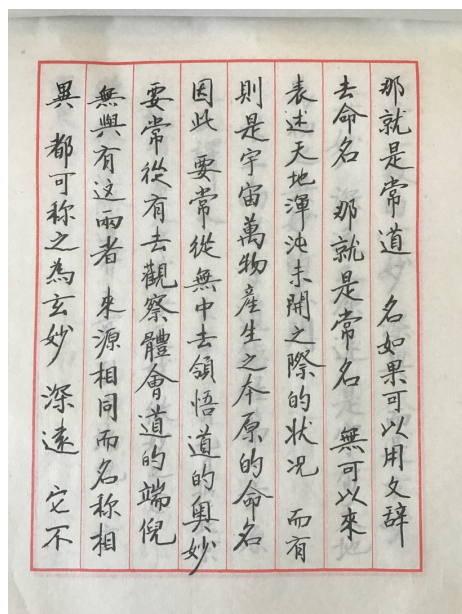


Figure 9 Calligraphy of Tao Te Ching by Dr. Li.

limited to just sit in front of a computer and watch videos to study thoracic surgery as those video clips have been edited and look “perfect”. However some knowledge has to come from observation on the site, for instance the best place to stand at to perform an emergent operation.

In order to improve his team members’ comprehensive ability, he organized a journal club to read classic medical articles and regularly review the recent good works of professionals in the field of thoracic surgery. He prefers to understand people’s real thoughts via a diplomatic method of anonymous voting. Therefore he designed a questionnaire to ask about the details of the reading club events, covering questions on the time, frequency, the time allocated to each speaker, the language usage, whether to invite master degree students or not, etc. In addition, he also tries to provide a platform to improve people’s public speaking skills. To achieve this, he set up a stand in the Department and asks all the participants to share their opinions over there. As it is a relatively formal event, the participants will become more prepared, from the contents of their speech to their dressing code.

03

In the information era, people use their pen to address their thoughts less and less. Even the surgical reports are in

electronic versions nowadays. Dr. Li and Chief nurse Ms. Liu both lament this change (Figure 9).

When Dr. Zhao was asked about this issue, he thought for a while and answered “*the time has changed, thus the way how our generation thinks has also changed. However art, philosophy and medicine are related to some extent. We may not have the opportunity to go and study in Ireland and may not be able to illustrate the beautiful church with pen, but Dr. Li’s words and action will always influence us. I believe it is a kind of spiritual heritage.*”

When asked about what he most wants to say to all the young surgeons, Dr. Li said that he needed to give it a good thought.

The next morning, the editor received the following message:

“*My suggestion to the young surgeons is to be an honest person and give earnest effort to the work they are doing. They should aim at becoming a master of their scalpel as well as a master of their thoughts.*”

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Footnote

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