



Jian Hu: an optimist with strong curiosity and an appetite for knowledge

Submitted Mar 10, 2020. Accepted for publication Mar 27, 2020.

doi: 10.21037/jtd.2020.04.10

View this article at: <http://dx.doi.org/10.21037/jtd.2020.04.10>

Jian Hu, Director, Department of General Thoracic Surgery and Director of Lung Disease Diagnosis & Treatment Center, the First Affiliated Hospital of Zhejiang University.

Jian Hu is more than 50 years old, but he looks much younger. He revealed that the secret of staying young is to maintain a good mood and stand firm against challenges. When he uses WeChat messaging, “sun” is his most favorite emoji, because he believes that when you have sunshine on your mind, you do your work in a candid and honest manner. The unknown world and unresolved mysteries are naturally attractive to him. He is thrilled by the moment of capturing inspiration and uncovering mysteries. He likes to be with young people and listen to their ideas, because he believes that nimble and smart young talents will bring inexhaustible momentum to power the team’s development. In the past decade, he led his team to build a clinical center of thoracic surgery, which is the best of its kind in Zhejiang. The center is also well-known in China and even among the international community. At the juncture of a new decade, he believes the success story will continue.

The first thoracic enhanced recovery after surgery (ERAS) center in China

Situated on the bank of the scenic West Lake, the First Affiliated Hospital of Zhejiang University dates back to 1947 and is now 72 years old. The Department of Thoracic & Cardiac Surgery was established not long after the hospital opened its doors, and was among the first such departments in China. Under the first director, Prof. Huayu Shi, a famous specialist of thoracic surgery and a founder of the discipline in China, the department enjoyed a glorious history.

The year of 2009 was a watershed year for the Department of Thoracic & Cardiac Surgery, as it was split into the Department of General Thoracic Surgery and the Department of Cardiovascular Surgery.

“At that time, most surgeons wanted to go to the Department of Cardiovascular Surgery, and few people wanted stay at the Department of General Thoracic Surgery.” Jian Hu says, going on to explain his greater interest and suitability for tumor therapy and the better opportunity offered by the Department of General Thoracic Surgery. From this time onwards, the department has been his battlefield in the fight against chest diseases.

With the development of the discipline and the changes in the disease spectrum, especially in the use of low-dose spiral computed tomography (CT) scanning to replace chest X-ray, a large number of lung cancer patients have been identified, and the Department of General Thoracic Surgery has embraced the sound development of this trend. However, many problems remain unanswered, such as which kinds of ground-glass nodules need to be resected, which surgery should be adopted to remove the nodules, and whether lymph nodes should be removed as well. Surgeons must be driven by these problems and find the right answers.

“The Department of General Thoracic Surgery has many problems to be resolved, and that suggests I had made the right decision.” Jian Hu has natural instinct to work on unresolved problems.

One question that has concerned the director since the department was separated is how the valuable traditions of the older generations can be inherited for exploring creative ideas and overcoming medical challenges to carry forward the department’s strength and spirit.

In the early years, the department performed about 900 surgeries a year. Although this was the highest in Zhejiang province, it was not a significantly high compared to the counterparts at other hospitals, and remained at the mid-level on the nationwide scale.

He realized that the department could forge a new development area if it focused on routine surgeries, but the pace of development might have been even slower than the industry average. In order to speed this development, the



Figure 1 A meeting of ERAS promotion and summary. ERAS, enhanced recovery after surgery.

department had to explore uncharted waters.

Thus, “innovation” became the underlying impetus to drive development at the Department of General Thoracic Surgery.

“*We must produce results.*” Jian Hu’s first goal was to do more routine surgeries and accumulate experience. The ERAS center was established in January 2013, and it has played a significant role in increasing the volume of surgeries and accelerating the department’s development.

Owing to the joint efforts of thoracic surgeons in China, the concept of ERAS has been rapidly and widely recognized across the country in recent years. Under the leadership of Jian Hu, the department established China’s first rapid thoracic ERAS center and pushed the clinical translation of ERAS.

According to Jian Hu, before the center was established, the concept of ERAS had not been deeply understood, especially by thoracic surgeons. Most were doubtful that rapid recovery would be possible for major surgeries like thoracic surgeries. However, where there is a challenge, there is an opportunity, and the Director has never been afraid in the face of difficulties.

Constrained by the limited number of ward beds, the department could manage to perform up to 1,500 surgeries a year if it adopted the conventional ideas. However, he found that some patients could recover quickly after surgery. Jian Hu thought that if his department could craft a set of reasonable procedures and choose eligible patients, rapid postoperative recovery was possible.

After the ERAS procedures were introduced at the department, patients began to be discharged just 3 to 5 days after surgery. Two types of surgeries were successively introduced: ambulatory surgery, which is also known as day

surgery; and weekend surgery where patients are admitted to prepare for surgery on, undergo surgery on Saturday, are discharged on Sunday, and can return to work on Monday.

The shortened hospital stay, decreased medical expenses, and lower incidences of postoperative complications dramatically reduced the burden of surgery. Practice has confirmed ERAS is feasible and effective in the department of thoracic surgery (*Figure 1*).

After years of exploring and reviewing clinical research and experience from domestic and foreign hospitals, Jian Hu and his team developed a characteristic ERAS management system comprising six steps: airway management, pipeline management, a pain-free ward, nutrition management, thrombus management, and sports rehabilitation.

For example, a non-tracheal intubation (tubeless) anesthetic technique in some eligible patients can reduce airway injury and atelectasis caused by intubation, thus allowing faster recovery; in some patients, no chest tube is needed, or only a thin, soft tube is placed, and/or the tube is removed as soon as possible. The construction of pain-free wards and the adoption of multi-modal analgesic programs after surgery help to reduce pain, and early ambulation is encouraged to avoid the risk of venous thrombosis. Thanks to technical advances in the minimally invasive surgery, ERAS, and perioperative nursing technology, some patients with poor lung function regain the opportunity for surgery; therefore, the original evaluation standards and systems need to be optimized to appropriately expand the surgical indications without increasing the incidences of airway complications during the surgery.

The procedures have continued to be improved, and the six links have later increased to nine and now twelve. Patients can receive individualized therapies as doctors can



Figure 2 A milestone: the 1,000th robot-assisted surgical operation performed in the Department of General Thoracic Surgery.

pay attention to details.

Since it began its first forays into ERAS, the hospital's ERAS Center has published many scientific articles in the *Annals of Thoracic Surgery (ATS)* and other top journals. It has contributed to the development of a series of thoracic surgery consensus and guidelines and is a pioneer in promoting the adoption of ERAS in thoracic ambulatory surgery.

With the successful ERAS application, the Department of General Thoracic Surgery once performed about 2,000 surgeries a year with only 42 beds, compared to some 1,000 surgeries when the department was founded. By the end of 2019, the department has completed roughly 5,000 operations a year, which is a remarkable figure for a general hospital.

Thus, the development of ERAS has brought a larger space and more opportunities for the Department of General Thoracic Surgery to explore other medical fields.

Integrated development of medical and surgical disciplines

As an academic leader of thoracic surgery, Jian Hu pursues innovations in both surgical techniques and ideas. He abandoned the conventional perception that surgeons should focus only on surgeries and figured out a road map for the integrated development of medical and surgical disciplines based on the backdrop of advanced medical technologies.

From conventional thoracotomy to video-assisted thoracic surgery, the da Vinci surgical system, and the magnetic navigation system, Jian Hu has never stopped his pace of exploration in the past decade. As the director of a famous thoracic surgery center in China, he has the courage to both follow the international trend and lead the



Figure 3 Electromagnetic navigation technique.

development of thoracic surgery.

In September 2014, Jian Hu performed the first da Vinci-assisted surgery in Zhejiang Province. Now the Department of General Thoracic Surgery is among the greatest users of surgical robots in China (*Figure 2*).

His next plan is to “revolutionize” the da Vinci surgical system to make it smarter and more specialized. He pointed out that the robot is actually a mechanical arm. Artificial intelligence technology can increase the smartness of a robot, so that it can pinpoint small nodules and define the scope of resection. However, there is still a long way to go.

Besides this, based on the characteristics of these surgeries, he hopes to develop special robots for thoracic surgeries.

Due to the changes in the epidemiology of tumors and the popularity of early screening in health check-ups, many tumors can be diagnosed in their early stage. Meanwhile, the advances in medical technology and industry have also made it possible to achieve the minimally invasive therapy of tumors. Jian Hu is wondering whether minimally invasive or non-invasive techniques can be used to treat thoracic diseases in the early stage.

For instance, for tumors in the respiratory tract, can we abandon the traditional operation and instead use the natural cavity of the lung to achieve the precise removal? Based on continuous explorations, he has found a creative solution: the use of electromagnetic navigation bronchoscopy (ENB) to achieve early positioning, early diagnosis, and early treatment of lung nodules, bringing minimally invasive surgery to a higher level. Up to now, the department has performed about 400 surgeries with the help of ENB, more than any other hospital in China (*Figure 3*).



Figure 4 Launch ceremony for the 13th Five-year National Key R&D project (Jian Hu is in the third from right).

With the integrated development of medical and surgical disciplines, Jian Hu led the department to make a successful application for the research and development of a digital diagnosis and treatment instrument titled “Construction and Application of An Endoscope Evaluation System” (Figure 4).

Endoscopes can be divided into two categories: the rigid endoscopes, typically used by surgeons, include laparoscopy and thoracoscopy; and the flexible endoscopes, which include the gastroscope, bronchoscope, laryngoscope, and rhinoscope.

Jian Hu demanded that in addition to traditional surgical techniques, young surgeons in his department should also master flexible endoscopy such as bronchoscopy. At present, the department performs about 700 cases of bronchoscopy-based examinations and interventional operations every month, and the figure is close to 10,000 a year.

Dr. Chengli Du, a thoracic surgeon in the Department of General Thoracic Surgery who specializes in endoscopic treatment, said that surgeons have many advantages in endoscopic treatment. First, surgeons have performed many surgeries, and they have a better understanding of human anatomy and their hands are more delicate. Second, as an emerging discipline, the indications by interventional techniques are still being investigated; for example, after microwave ablation guided by magnetic navigation, an additional surgery is still needed to remove the lung tissue, which has to be performed by a surgeon. This procedure is not a first-line treatment but may bring huge changes to the treatment for small nodules and thus bring great benefits to patients. Finally, intervention is a complicated and risky

technique that may cause bleeding and massive hemoptysis, which may be rescued by surgery in a timely fashion.

Jian Hu points out that the use of both rigid and flexible endoscopes and the integration of medical and surgical treatments may help to maximize the advantages of minimally invasive treatments. A hybrid therapy often has higher effectiveness and safety.

During clinical practices, he is trying his best to find the most difficult problems and exploring solutions to these problems. From clinical practice to scientific research and back to clinical practice, a sound industrial chain has been established to commercialize research findings, which includes the research and development of medical devices (e.g., cutter/stapler), blocking glues, and medicines.

A typical sample is the development of ultra-thin bronchoscopy for the screening of central lung cancer.

According to Dr. Chengli Du, a large number of early peripheral lung cancer patients can be identified through low-dose spiral CT. However, CT screening also has blind spots, especially for central lung cancer. Obstructed by the hilar bronchus and blood vessels, some early central lung cancer lesions cannot be discovered. Bronchoscopy is an important tool for central lung cancer examination, but it is mainly used for diagnosis and treatment purposes. It requires a special room and a disinfection site, with poor portability. Furthermore, the bronchoscope is thick, and there is strong resistance when the device is inserted into the trachea, leading to the patient feeling very uncomfortable during the examination.

Due to the absence of reliable screening measures, many patients with central lung cancer are always diagnosed at

advanced stages with poor prognosis. Smokers older than 50 years are the risk population of central lung cancer. If the cancer can be identified in its early stage, local therapy can achieve radical removal, which means less pain and lower socioeconomic costs. So, how can central lung cancer be screened out early? Jian Hu was haunted by this problem, until the story developed in a new direction.

At a conference about the Research Platform of Medical Instruments in February 2019, he was inspired by a laryngoscope used for tracheal cannulation. The research platform, backed by Zhejiang University, aims to provide an opportunity of direct communication among clinicians, medical engineers and medical device companies. At the conference, they can exchange ideas and discuss how to address clinical problems. At the conference, he had the following conversation with a representative of a company manufacturing laryngoscope:

With this laryngoscope, can I see inside the bronchus?

Yes, you can.

Can you make it a little smaller?

Yes.

Can you increase its definition?

Yes.

Can it take photos?

Yes.

Can it be a disposable device?

Yes.

After receiving positive answers about these key problems, Jian Hu believed that they could devise a laryngoscope that is thin, soft, and bacteria-free and could be used for screening central lung cancer. They discussed some specific issues and agreed to start the development process for the device. In November 2019, a sample device was developed for early screening of central lung cancer, and exploratory evaluations were carried out to assess the device's softness, thickness, definition, and its ability to identify early-stage lung cancer patients.

"It will be clinically valuable if early-stage central lung cancer can be screened out within 5 minutes." According to Jian Hu, the project has been listed as a key research and development project in Zhejiang, and the device is expected to be used in clinical practice within two years.

Insist on getting to the bottom of the matter

Jian Hu has an intrinsic curiosity about the unknown world. He also harbors a high level of tolerance to new things. He has stepped out of the orbit again and again, trying to figure

out if there are new possibilities.

In the medical school and during the early years in the hospital, his mind was occupied by a lot of questions. His teacher even asked him to stop because he asked too many questions. If he continued, many questions would return to where they were in the first place, and it was impossible to answer them under the existing medical perceptions.

Since his questions could not be answered at that time, was it useless to ask them? He believed, however, they were not useless questions. He wrote them down and asked them again later. Nowadays, many of his unanswered questions have already been resolved.

For instance, minimally invasive surgery was initially applied in the treatment of relatively simple conditions such as bullae and hand sweat. Jian Hu wondered if it were possible to apply the surgery in removing lung tumors, and if it were feasible for lung wedge resection, lobectomy, or segmentectomy. He always hoped to break traditional rules and treat diseases with fewer accompanying traumas. His hopes have now become reality.

In addition to clinical questions, he also raised fundamental questions: *"During the postgraduate study, we had to do experiments. My teacher demanded that we do them as he did, but I wanted to take a different approach, so I asked a lot of questions, and hoped to convince him to accept my recommendations. But he finally insisted I should follow his instructions. I had no choice but to obey his order (smiles)."*

After he became a teacher, sometimes he also faced the same dilemma. However, he did not simply give an order about which direction is right, instead he asked students to take both directions and see which the right one is. *"Sometimes there is an answer, sometimes there is no answer. You have to make explorations and discover new possibilities."*

He has been trying to provide sufficient funding support and convenient access to laboratory facilities for his students, so that they can explore more research and development opportunities.

He revealed that his push to build a laboratory was partly driven by a "complaint" from a student. At an event, a student from CHU KOCHEN College of Zhejiang University told him that he felt "homeless" without a laboratory for scientific research.

The student's unintentional words made a deep impression on the director's mind. He later established an innovative discipline laboratory for his department. Development of the discipline has reached a new height after the establishment of the laboratory, and that student has since become an important member of his team



Figure 5 Innovative discipline laboratory.

(Figure 5).

Now being pushed forward by a tight schedule, Jian Hu feels that he has less time for contemplation than before, and he hopes to leave more opportunities for young talents.

He often spends 15 minutes in discussions with students and listens to what they have to say. He hopes the brief discussions can distract him from his busy affairs, and allow him to exchange thoughts and ideas with his students.

“During our study with Prof. Hu, we feel we are respected.” His student Xu Lin says, *“Prof. Hu always holds regular discussions with us. Although he is busy, he will make an appointment with us in advance, and he is always punctual. He would not ask us to meet with him at sudden. I think this is hard for a professor. It is important to respect each other and to not waste each other’s time.”*

Hu suggests that when creative ideas or solutions come to mind, the students should write them down quickly, because inspiration can come and go in a flash. Besides this, he advised that team members should hold regular discussions to discover problems and resolve them. If some problems cannot be resolved immediately, everyone can write them down, and at some points somebody might find the answers.

In terms of the feasibility assessment of a research project. Jian Hu is relatively less stringent in order to encourage young people to explore innovations. He has also made no secret of his preference to students who love to think and show strong curiosity. *“I have a graduate student, his name is Xu Lin. He asks questions at every meeting. When he asks questions, others will not have the opportunity to ask questions. So, I told Xu Lin to leave the opportunity to other students at sometimes. I think he has a lot of potential.”*

For Xu Lin, many things have triggered his curiosity in the laboratory and in the outpatient office, and he wants

to know the answers; for example, why this patient shows different clinical manifestations from others, why two patients are given different therapies although they appear to have the same symptoms, or why the experiment’s outcome is not in line with his expectation. Xu Lin said that raising questions not only enriched his knowledge system but also reminded Prof. Hu of other students’ weak points. Sometimes he even pointed out the flaws of the existing knowledge system. Questions without a definite answer may become a source of inspirations for the team or graduate students during their research activities.

Xu Lin said he has never worried that Prof. Hu would be bothered by his questions, and he has felt no pressure for asking questions. Prof. Hu’s patience and tolerance made him feel that knowledge is a free field. Even if you know nothing, or you are a green hand, you also have the freedom to ask questions and get answers. No one is above another in the academic world.

Young mindset, young heart

For Jian Hu, doing the job as best as he can is his top priority. Xu Lin said that sometimes when he checked the phone in the morning, he could see messages from Prof. Hu sent at midnight. *“He is passionate about work, and he’s trying his best to take care of his patients and deal with other affairs.”*

Many patients are afraid of surgery, because they are unable to understand the benefits and risks of a surgery from the doctor’s perspective, and they tend to be overly worried about the risk of surgery. At this time, Prof. Hu will tell the patient with sympathy, *“If I were in your position, I would also choose to receive a surgery.”* He offers psychological support to patients and builds good doctor-patient relations, so that patients and their families can have better



Figure 6 Jian Hu (fourth left in the front row) and his postgraduate students.

understanding in the situation.

For Xu Lin, Prof. Hu is a role model. Prof. Hu has used practical actions to fulfill a doctor's duties and uses his strong work enthusiasm to influence young talents in his team.

Since 2011, Jian Hu has been the head of the Department of Thoracic and Cardiovascular Surgery at Zhejiang University, responsible for the admission and management of master and doctorate candidates. Young doctors and graduate students in the department have formed an important research team. Based on the laboratory platform, they have undertaken research projects at national, provincial, and ministerial levels, providing strong momentum for the innovative development of the discipline. In recent years, the team has published more than 10 scientific articles in top journals on thoracic surgery (*Figure 6*).

A journal club is held at 7:00–9:00 p.m. every Tuesday and is designed for everyone to get abreast of the discipline's latest development and have an academic exchange. At the meeting, graduate students share their latest-read literature and reading experience. The literature comes from 12 influential journals in the industry and interdisciplinary fields. As a result of these sharing sessions, when one person has read an article, it means that everyone has read it. Along with this, each Thursday morning ward round, headed by the chief of the department, serves as a platform for sharing information between the patient and caregiver and among the young talents. Backed by the joint efforts, the team acquires first-hand information and experience about the latest advances in scientific research and clinical practices.

With the sprouting of advanced technologies, Jian Hu reminds young doctors to pay special attention to high-tech companies' exhibition booths when they attend international conferences. He reasons that advanced medical devices play important or even decisive roles in propelling medical development. A new product may lead to a breakthrough in a medical discipline, and exhibition booths are must-visit places to learn about newly developed medical devices. Visiting these booths with critical eyes will help doctors to learn which ones are the state of the art and valuable to clinical practices, which ones are worth trying, and which ones are already outdated.

He encourages young doctors to pursue exchanges at international conferences and medical centers, and he has also invited international experts to give lectures in the hospital (*Figure 7*). He hopes that, through various forms of exchange activities, young doctors can grasp the latest developments in the discipline and use their own experience and ideas to stimulate innovation.

“Young people including some ambitious doctors are the driving force of our time, so I'm very grateful to my team.” Jian Hu explains that the department's achievements are not made by any individual, or a few people, but by the whole team, especially young and middle-aged members.

He likes to make friends with young people, and therefore he has kept a young mindset. *“Some people told me that I look very young. I agree with them. I have a young mind, with an old body.”* He has displayed a sense of optimism on many issues.

When he works on a problem, he makes an all-out effort; when he faces difficulties, he is fearless; and when he is



Figure 7 Prof. Derek Radisky from Mayo Clinic visits the First Affiliated Hospital of Zhejiang University.

unsuccessful, he changes the plan and tries again. Optimism is also a key quality behind his success.

Many patients seeking help at the Department of General Thoracic Surgery are diagnosed with lung cancer. Jian Hu often tells them that the discovery of lung cancer is a bad thing but also a good thing. Early discovery means patients can get early treatment before it is too late, while there are more therapies than ever before. Therefore, if you view the disease from another perspective, you can understand it in a calm and peaceful manner.

One of his students submitted an article to a journal, and he was confident that it would be accepted, but ultimately the manuscript was rejected. He was very frustrated and couldn't understand why his well-prepared article was rejected. After several conversations, Jian Hu found the student was in bad mood, and he sent a lot of encouraging messages to him. He reviewed the article and offered some revisions to boost his confidence. Finally, he made a second attempt and the article was finally accepted by a well-reputed journal.

In the eyes of students, Jian Hu is very easygoing. He has sufficient patience and tolerance to students. When a student makes a mistake, his first reaction is not criticism, but to give rational instructions and guide him/her to analyze what the problem is and correct it, and to teach him/her how to avoid the same problem the next time. He gives students the opportunity to make mistakes, as long as they are able to gain some benefit from these mistakes and learn not to repeat them. When students come under heavy pressure, he makes humorous jokes or uses funny words to encourage them.

He will let young people plan some team-building activities. Once, without his knowledge, the students replaced a department activity with a home party, and he was the happiest one there.

Jian Hu is usually formally dressed at the workplace. In some casual occasions, he wears fashionable clothes. He said he wants to learn about the trends of young people. He is fond of traditional tea, but he has also tried milk tea, because it is favored by the youth, and he found he enjoyed how it tastes.

When he uses WeChat messaging, “sun” is his most favorite emoji, because he believes the sun can give out bright light. When you have sunshine in the mind, you do jobs in a candid and honest manner. This work style produces tremendous power. A positive and upbeat mentality empowers sharp insight, and with a question-based mind, one can attain what is unreachable to others.

Epilogue

*“Two roads diverged in a wood, and I—
I took the one less traveled by
And that has made all the difference.”*

Excerpt from the poem “The Road Not Taken”, by Robert Frost, USA.

In the path of life, Jian Hu has harbored good hopes, making explorations, reaping benefits, and striving to be a happy traveler with a youthful mindset and unwavering curiosity.

Profile

Jian Hu (*Figure 8*) is a professor, chief physician, and supervisor of doctoral candidates. Currently he is the director of the Department of General Thoracic Surgery, director of the Lung Disease Diagnosis & Treatment Center of the First Affiliated Hospital of Zhejiang University, and director of Zhejiang Province Lung Cancer Diagnosis and Treatment Technology Research Center. He is a Zhejiang



Figure 8 Prof. Jian Hu.

University “Qiushi” Distinguished Scholar and holds the title of Chief Scientist of the National Key R&D Program in the 13th Five-Year Plan.

His other positions include member of the Standing Committee of Chinese Association of Thoracic Surgeons, vice chairman of the Professional Committee on Thoracic Surgery of Chinese Research Hospital Association, vice chairman of the Professional Committee on Thoracic Surgery of China Medical Education Association, member of the Standing Committee of Chinese Medical Doctors Association Medical Robot Branch, member of the Standing Committee of Thoracic Surgery Branch of China International Exchange and Promotion Association for Medical and Healthcare, vice chairman of the Professional Committee on Thoracic Surgery of Chinese Medical Doctors Association Medical Robot Branch, vice chairman of the Expert Committee on Minimally Invasive Surgery under the Chinese Association of Thoracic Surgeons, evaluation expert of the Medical Device/Technology Evaluation Center of National Medical Products

Cite this article as: Gao C, Dong J. Jian Hu: an optimist with strong curiosity and an appetite for knowledge. *J Thorac Dis* 2020;12(5):2840-2848. doi: 10.21037/jtd.2020.04.10

Administration (NMPA), National Health Emergency Response Guidance expert, chairman of the Thoracic Surgery Branch of Zhejiang Medical Association, president elect of the Zhejiang Provincial Association of Thoracic Surgeons, and chairman of the China Thoracic Surgery-Lung Cancer Federation Zhejiang Branch.

Acknowledgments

Special thanks to Dr. Wang Lv, Dr. Chengli Du, and graduate student Xu Lin of the Department of General Thoracic Surgery, the First Hospital of Zhejiang University, for their help during the interview.

Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned by the Editorial Office, *Journal of Thoracic Disease*. The article did not undergo external peer review.

Conflicts of Interest: Both authors have completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/jtd-2020-40>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

(Journalist: Chen Gao; Contributor: Jie Dong, JTD, jtd@amepc.org)