

## Prof. Yuan Chen: with both a benevolent heart and healing hands

Submitted Sep 24, 2017. Accepted for publication Sep 29, 2017.

doi: 10.21037/jtd.2017.09.149

View this article at: <http://dx.doi.org/10.21037/jtd.2017.09.149>

### Introduction

The ancient Greek aphorism “*know thyself*” engraved on the forecourt of the Temple of Apollo epitomizes the human desire for the exploration into the unknown. In fact, never has mankind dragged their feet in understanding themselves, as in the achievements scientists have made all these years in the studies of disease and pathology.

Ere the 2017 WCLC journey, AME Editors were sent across China to conduct in-depth interviews with an army of distinguished experts in the field of lung cancer. Together we learned how these soldiers fought for the nation that has the largest number of patients, and how they dedicated their lives to inventing the most-advanced weapons and probing into the enemy camp. From the past, they reflect and learn from mistakes; At present, they work hard and make changes; For the future, they make plans and improvements.

May this issue take you to the innermost world of these Chinese scholars, where you can delve into their wealth of knowledge and be inspired.

### Expert's introduction

Yuan Chen, chief physician, MD; Department Head of Thoracic Oncology, Tongji Hospital of Tongji Medical College, Huazhong University of Science and Technology; Director, the 6<sup>th</sup> Chinese Anti-Cancer Association (CACA); Vice Chairman, The Committee of Rehabilitation and Palliative Care, Chinese Anti-Cancer Association; Chairman, Chinese Association of Radiation Therapy (CART); Deputy Secretary and Executive Director, Hubei Anti-Cancer Association; Chairman, The Committee of Rehabilitation and Palliative Care, Hubei Anti-Cancer Association; Vice Chairman, The Committee of Lung Cancer, Hubei Anti-Cancer Association; Vice Chairman, Hubei Targeted Therapy Committee; Vice Chairman, Committee of Radiation Oncology, China Medical Association Wuhan Branch (*Figure 1*).

Proximate to the Tower of Yellow Crane, on the bank of Changjiang River lies a hospital renowned far and



**Figure 1** Prof. Yuan Chen.

near, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology. Founded in 1907, after more than a hundred years of development, Tongji Hospital is a medical talent galaxy, where countless talented people have been cultivated. For instance, Boqiang Liang, Wenqi Jin, Shizhang Bei, Fazu Qiu and other world-famous scholars studied or taught at Tongji Hospital. The saying “Union in the North, Tongji in the South” is widely circulated.

### Affinity with Tongji Hospital

In 1980, Prof. Yuan Chen knocked on the door of Wuhan Medical School (now Tongji Medical College of HUST) to study. An indissoluble bond was formed between him and Tongji. When he was asked about the reason for being a doctor, Prof. Chan made a joke and said, “I was still young and I did not have a clear goal at that time. I just thought doctors in white robe looked very cool, and it would be a good idea to become a doctor. The student vow on the admission day made me realize being a doctor is more than just looking cool, but is with great responsibility and mission. I told myself that I must do my best since I have decided to become a doctor.”

Prof. Chen very soon became a houseman in Tongji

Hospital. Prof. Chen recalled, “There was a patient with paused heartbeat and breathing when I started my training at Tongji Hospital. There was no medical ventilator at that time. Under the leadership of the senior doctors, we, several assistants, helped to do the cardiac compression and artificial ventilation. After 6-hour resuscitation, the patient’s relatives had all arrived. Albeit he was in a state of coma, he still had the heartbeat, breathing and blood pressure. We tried to minimize the worst-case regret in the final farewell. It was a tiring but satisfying process.” It was the very first time that Prof. Chen experienced the feeling of saving a person. After that, he was more certain from the bottom of his heart that he wanted to be a doctor.

### Absorbed in the humanity of Tongji Hospital

During the process of learning and practice at Tongji Hospital, Prof. Chen was influenced by the professors imperceptibly. “Tongji Hospital has a unique history. It was relocated from Shanghai to Wuhan in 1955. The professors were from Shanghai. Some of them had excellent research backgrounds in their fields. What’s more, they were friendly and easy-going. I was impressed by their rigorous attitude towards the scholarship. Each hospital cultivates people with different characteristics. There are no pros and cons.” Prof. Chen continued, “The people from Tongji are ‘rigid’, but in other words, very meticulous. Sometimes, we wonder whether we can be more flexible instead of being rigid. Yet, we think we should stick to the rules and regulations. Therefore, our attitude remained unchanged. Flexibility cannot be applied to every situation. We have to take things seriously rather than simply getting the tasks done.”

Prof. Lian Zhang, the first professor at the Department of Oncology, Wuhan Tongji Hospital, was the mentor of Prof. Chen. Although Prof. Zhang was not world-famous in the international arena, he was very professional and self-critical in academic research. “*On one occasion, we met a professor in Tianjin who was more well-known than my mentor in the field of radiotherapy. He said Prof. Zhang included more clinical cases in the article than him.*” Prof. Zhang was principled. “*In the past, Tongji was small with a limited number of beds. There was a quota for radiotherapy. Usually, the patients may return home and wait for updates after the registration. Some people asked Prof. Zhang in person for arranging the beds secretly. Although no one would notice someone had jumped the queue, Prof. Zhang insisted on following the rules.*” What impressed Prof. Chen most was how his mentor took good care of all the patients, especially those from the poor

regions. “*In 1985, 1986, many underprivileged patients from the north came for consultation. Some poor people from Henan carried a huge bundle of buns which they would eat with water for a whole month. Prof. Zhang showed much solicitude for these patients. He often told us they were in a hard time and we therefore should try our best to treat them.*”

### Talking over palliative care

Prof. Chen was deeply impressed by the humanity shown in Tongji Hospital. Further affected by Shiyong Yu, the past Chief of Oncology, Tongji Hospital, Prof. Chen not only cared about the patients’ symptoms but also their mental and psychological status. He gradually began to pay attention to palliative care.

The modern palliative care was originated from England in the 1960s. Soon, it was widely spread all over the globe. The developing and developed countries have established the palliative care system with their own features. Prof. Chen, as the Vice Chairman, The Committee of Rehabilitation and Palliative Care, Chinese Anti-Cancer Association and the Chairman, The Committee of Rehabilitation and Palliative Care, Hubei Anti-Cancer Association, is well-experienced in the clinical practices of palliative care.

“*The clinical development of lung cancer is rather speedy. Many doctors put emphasis on the cure of tumors or the control over the growth of tumors, however, they always omit the living quality of the patients during the whole treatment process. The medical science nowadays cannot solve all the problems. For cancer patients, especially in late-stage, it is more vital to enhance the living quality than to extend their survival period sometimes. We may let them know ‘living in harmony with tumors’, life is not about the length but the meaning.*” He quoted the words from Dr. Trudeau, “*To cure sometimes, to relieve often, to comfort always.*” Prof. Chen mentioned that a responsible doctor must deal with patient’s symptoms while caring about their psychological state.

Mainland China is attaching more and more importance to palliative care.

Around 10 years ago, the Chinese palliative care ranked at the bottom. Nowadays, it is in the front row. It is a giant leap forward.

Regarding how to improve the tumor palliative care in China, Prof. Chen mentioned the significance of a multidisciplinary team. The coverage of tumor palliative care is too broad. Too many problems have to be tackled, and they cannot be solved by simply a few doctors. You

may need to discuss with the related experts. Other than pain, some patients may have more symptoms. Therefore, palliative care requires the cooperation of a multidisciplinary team to achieve the aim.

From Prof. Chan's daily work, you will realize how important palliative care is to him. A houseman in the oncology department described Prof. Chen as a careful, hard-working and true-hearted doctor. She remembered there was a lung cancer patient who suffered from nostalgia and he denied that he had cancer. The patient was out of control and reluctant to undertake any treatment. Even his relatives could not help. Prof. Chen came to see him after seeing dozens of patients. He smiled to the patient, tapped on the patient's shoulder and held his hands tightly to show his support. The patient felt like Prof. Chen was his family member more than just a doctor.

*"Prof. Chen treated patients kindly and patiently. All the colleagues in the department admire his good temper,"* another houseman described, *"One night when we were leaving, a strange person stopped us and yelled repeatedly, 'You have to wait for my grandma.' Prof. Chen asked him what happened. He still kept shouting 'My grandma is sick. You have to wait for her.' I was shocked at that time. I thought we had seen all the patients that day and he might be looking for the wrong person. We'd better leave in case he was insane. Prof. Chen asked him in detail and found out that he and his grandma missed out the registration time. The lady was still at the outpatient hall. I suggested going downstairs to the hall directly to save time. Yet, Prof. Chen said there were too many people in the hall. To protect the privacy of the patient, he reopened the door of his office."*

### Talking over targeted therapy for cancer

Prof. Chen is not only well-experienced in palliative care of cancer but also tumor radiotherapy and targeted therapy.

Non-small cell lung cancer (NSCLC) accounts for 80% among all types of lung cancers. The rate of EGFR genetic mutation from the Asian NSCLC patients has reached 50%. The sensitive mutation refers to the mutation which is sensitive to the 1<sup>st</sup> generation of EGFR-TKI targeted drugs. Speaking of the advanced development of NSCLC therapy, Prof. Chen mentioned that the 1<sup>st</sup> generation of EGFR-TKI targeted drugs are effective to the sensitive mutation, which is about 70%. The progression-free survival (PFS) can be 10–12 months. Compared with the period without targeted therapy, the effectiveness of chemotherapy was about 30% with 4–6 months PFS. For the patients with late-stage lung cancer in the past, only 20–30% of them

could survive up to one year. After the 1<sup>st</sup> generation of EGFR-TKI targeted drugs entered the market, basically more than half of the patients could live more than one year. Albeit the 1<sup>st</sup> generation of targeted drugs had a significant curative effect, most of the patients would have drug resistance 10–12 months after medication. There would be a chance of cancer reoccurrence.

*"To a certain extent, the reasons for having drug resistance are not identical. Some studies indicating that 50–60% drug resistance of the 1<sup>st</sup> generation of EGFR inhibitor is related to the T790M mutation. Recently, there is a great progress of Anti-EGFR T790M medicine in tumor treatment. AZD9291 is the first lung cancer medicine against the mutation of EGFR-T790M. It has been launched in the market, named as Osimertinib. Using AZD9291 and EGFR-T790M, the PFS of the patients with the mutation can be prolonged about one more year."* The targeted drugs have fewer side effects. They have more advantages of improving the patients' living quality in comparison to chemotherapy.

### Making good use of knowledge

In 2002–2003, Prof. Chen made a visit to the Department of Radiology, MD Anderson Cancer Center, the USA as a visiting scholar. "MD Anderson is the best cancer center in the USA. Albeit I only stayed there for a year, it was a fruitful experience. Two things there impressed me most. Firstly, the MDT multidisciplinary cooperation was magnificent. At that time, there were people doing similar things in China, however, it was still unorganized. In MD Anderson Cancer Center, there were MDT teams discussing cases every week. The experts from various specialties would gather and seek for a most suitable treatment plan. Sometimes, they spent 3–4 hours or even half a day on discussing the clinical cases. Moreover, there were countless clinical trials regulated in accordance with the Good Clinical Practice (GCP) guidelines. For instance, there would be a priority problem of chemotherapy and radiotherapy when lung cancer patients could not undergo thoracic surgery. At that time, a clinical trial would be useful to select the best plan.

After returning from MD Andersen Cancer Center, Prof. Chen started focusing on clinical trials. "We think clinical trials are of utmost importance. Nowadays, the country implements strict rules and regulations on the clinical trials. Using the medicine with the foundation of preliminary study would be a good attempt to the patients. There are tons of processing clinical trials, including chemotherapy,



**Figure 2** Prof. Yuan Chen and his colleagues are talking with the patient.

targeted therapy and immunotherapy and so on. From the beginning of 2016 to mid-2017, we took part in a single-arm trial focusing on NSCLC patients who have the 1st generation of TKI resistance due to the T790M mutation. In this study, we use Osimertinib to treat the patients with T790M mutation. Albeit only dozens of patients were involved, most of them could suppress the tumor growth. Hence, they could live with a prolonged survival period and enhanced living quality. I was particularly struck by the encouraging result. There was a patient who had tried chemotherapy and targeted therapy before participating in the trial. Soon, his body developed drug resistance, he was exhausted and the T790M mutation was found after examination. After a week of medication, his mental status and appetite turned well. It was encouraging to see the tumors were under control and his survival period was extended for another year.

Currently, Prof. Chen is directing or taking part in several clinical trials. One of the projects is concentrating on the first-line treatment of late-stage or translational NSCLC patients. “The foreign study showing that the immunotherapy is more effective than chemotherapy on patients with PD-L1 expression. Yet, the chemotherapy is still commonly-used in China. We will conduct a randomized controlled clinical trial for the late-stage NSCLC patients with high PD-L1 expression (more than 25%). The suitable patients will have the most internationally-advanced treatment. Besides, we have other clinical trials such as those focusing on EGFR mutation, the new targeted drugs, anti-angiogenesis, and chemotherapy. The drugs in the trials were tested and screened and can be claimed as the best medicine. The drugs are free of charge;

the doctors will specifically pay attention to the candidates. In the past, there was a misunderstanding that patients were treated as guinea pigs. At present, there is a twist. More and more people are able to accept new things and some of the patients are willing to accept the trials in order to have a better curative effect. The patients in the same ward would be influenced by one another to join the similar studies. The higher acceptance of the clinical trials is, the faster development of the medical oncology will be in China.

### Patients come first

There is no absolute curative effect on the tumors. Some patients may have more problems or side effects during the treatment. At that moment, not everyone can understand it. Some patients may complain that they have spent a lot of money without alleviating their diseases. *“I would explain to them with patience. Communication is vital, many patients would finally understand the doctors are for their own good.”*

*“In my professional career, there have been many touching moments. I came across a peasant lady who suffered from cervical cancer. Although the medical condition was not as good as today, the performance of radiotherapy was still noticeable. At the beginning, there was a return visit trimonthly. The disease progression was under control, therefore, she only had to come back once a year. One time, she brought me a pair of cloth shoes. She said, ‘Thank you for curing me. I can’t express my gratitude in words. I only know how to make shoes and I have made a pair for you.’ The pair of shoes was handmade, not something you could buy in the market. It is not the gift that counts, but the meaning behind it. I have kept it for many years.”* (Figure 2).

### Dialogue with Yuan Chen

**AME:** *In July this year, the first batch of 5 patients received music therapy in Tongji Hospital. What is your comment on music therapy?*

**Prof. Chen:** Music therapy is a multidisciplinary therapy integrated with psychology, medical science, rehabilitation and music, etc. It can reduce the psychological disorders, let people recover and promote health. In some well-developed countries like the USA, music therapy is already mature. However, in China, it is not popular still. Launching music therapy in Tongji Hospital is our exploration and new attempt. It highlighted the value in relieving the mental stress from the cancer patients. I hope we may have more exploration in this field. As long as it is beneficial to the

patients, we should give it a try.

**AME:** *The 2017 WCLC highlights hospice care and advocates “Sustainable care system in each region”. From your point of view, what would China do to support this system?*

**Prof. Chen:** Today, hospice care has been valued by many academic conferences of cancer, e.g., ASCO, ESMO, WCLC or CSCO. These conferences include a lot of information about hospice care. Palliative care is involved throughout the treatment. Hospice care is a part of palliative care. The targets of palliative care include not only the patients but also their relatives. Both are pressured. The sustainable care system is a giant system; it is impossible to achieve this system without cooperation. From the national perspective, the government's leadership is the prerequisite. From the social perspective, medical personnel is the key. Doctors and nurses have to beware of the problem. Furthermore, the attention and promotion from the social media or even the full support from the whole society are indispensable elements for establishing this sustainable care system.

**AME:** *Will you keep an eye on palliative care? What will be your key projects?*

**Prof. Chen:** I will keep paying attention to palliative care for sure. We always wonder how to do better. Doctors and patients in central cities are more open-minded to palliative care. However, the concept of palliative care is not common in second-tier or third-tier cities. Our next move is to promote the concept of palliative care to the primary hospitals. As there is a hierarchical medical system in China, theoretically, the cancer patients will go back to the primary hospitals. Thus, it is apparently necessary to launch the palliative care in the primary hospitals. We need to be sympathetic and to cultivate the palliative care personnel to help the patients for speeding up the development of palliative care. For example, how to deal with the late-stage cancer patients when they have the complications like dyspnea or asthenia. The advanced hospitals conclude and pass on their experience to the primary hospitals in order to strengthen the ability of the doctors for coping with these problems. Furthermore, we have to find out more methods and medicine to deal with the cancer symptoms. The treatment of carcinomatous pain is crucial in palliative care; the normal carcinomatous pain can be relieved by

Opioid. However, if the problem is more complicated like the asthenia in the late-stage cancer patients, the western medicine may not be helpful. We are questioning whether Chinese medicine can be more useful than the western medicine. According to the traditional Chinese medicine and pharmacology, ginseng can strengthen a person and reduce tiredness, etc. However, there is not enough evidence or related research of it. At the moment, we should act as a bridge between the international standards and the local researchers and try to obtain the international recognition. This would probably be our mission in the following years. There are many more symptoms in the cancer patients undoubtedly, which we can only deal with one by one.

**AME:** *Lung cancer is one of the most common cancers in China, ranking the top among malignant tumors. Would you please talk about the application of palliative care in the clinical treatment of lung cancer?*

**Prof. Chen:** Although the Low-dose Computed Tomography (LDCT) can detect early-stage lung cancer and thus can have a better curative effect through thoracic surgery, only few screening projects are launched in China. Seventy percent of patients are found to be in late stage after diagnosis, and cannot undergo any thoracic surgery. The cancer is basically incurable. Palliative care is necessary for late-stage cancers. Patients with late-stage cancers have many symptoms. There is a high chance of metastases in lung cancers, including bone metastasis, brain metastasis and so on. Relatively speaking, palliative care is especially vital in lung cancer.

**AME:** *You have in-depth studies in the radiotherapy of malignant tumors. What kind of malignant tumors are more suitable for radiotherapy?*

**Prof. Chen:** The head and neck cancers, like the sinus cancer. Patients are usually treated by radiotherapy. The surgical resection would be more effective than chemotherapy due to the lymph node metastasis recurrence. According to the clinical trial results from MD Anderson, many early-stage cancers, including cervical cancer and lung cancer, would have similar effectiveness between surgical resection and stereotactic body radiation therapy (SBRT). From the existing data, chemotherapy would have a better curative effect for the early-stage lung cancer than surgical resection. However, the sample

size is not large enough, we still cannot conclude that chemotherapy can replace surgical resection. Still, chemotherapy can be a supplementary method for the treatment of the early-stage lung cancers.

*AME: You have been a doctor for more than thirty years. Is there any habit you have been keeping up with?*

**Prof. Chen:** I have a habit when I make ward rounds. At night, I would think about the condition of the patients again and look for any other missing details which would be jotted down. I hope to provide better treatment on the next day or when they come back for further consultation. I hope young doctors can be responsible to patients. They cannot simply give medical advice. Critical thinking is essential.

*AME: Do you have any comments on the essence of being a doctor?*

**Prof. Chen:** Cancers can seldom be cured. Most of them

are just remission. As the saying goes, an oncologist is “to cure sometimes, to relieve often, to comfort always”.

### Acknowledgements

We would like to acknowledge Shanshan Huang, Liya Hu, Tongji Hospital of Tongji Medical College, Huazhong University of Science and Technology. Gin Li, Mengyang Xu, AME Publishing Company. Figure 2 is provided by Prof. Chen.

### Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

(Editors: Macy Liu, Mike Cheung, AME Publishing Company, [jtd@amepc.org](mailto:jtd@amepc.org))

**Cite this article as:** Liu M, Cheung M. Yuan Chen: with both a benevolent heart and healing hands. J Thorac Dis 2017;9(Suppl 11):S1156-S1161. doi: 10.21037/jtd.2017.09.149