



Video Assisted Thoracoscopic Surgery Workshop in Shanghai Pulmonary Hospital: A Thoracic Surgeon's Lifetime visit made Easy

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Abstract

Training is one of the main surgical aims a thoracic surgeon is looking for. Training in video-assisted thoracoscopic anatomical lung resection has been one of the cornerstones in the world of thoracic surgery training in the last decade. The shift from open to thoracoscopic lobectomy is a challenge that always required expert advice and hands-on simulation by expert surgeons. The availability of a training centre with a capacity to accommodate numerous trainees and the lead of the world expert trainers in its surgical programmes has always been an aim of chase for thoracic surgery trainees. Shanghai pulmonary hospital in China has moved to be the highest volume centre in the world with a daily case load approaching seventy thoracoscopic lobectomies. With this huge load, the hospital has become the main attraction for thoracic surgeons to train and spend variable periods of time in Shanghai according to their individual requirements. In this article we will discuss the trends of minimally invasive lung resections in the last decade and the current era of uni-portal thoracoscopic lobectomy. Subsequently, we will focus on how to best make use of your time spent in Shanghai pulmonary hospital, what to expect and how to make this lifetime journey a memorable one in the life of a thoracic surgeon.

Keywords: Thoracoscopic lobectomy; Pulmonary; Thoracic surgeon

The Need for Training in Thoracic Surgery

The training in complex thoracic procedures is always problematic across the world. With the booming of the benefit of VATS lobectomy over the last decade and the relative complexity of the procedure for surgeons who are converting from open thoracotomy procedures, the need for training and exposure to large number of VATS lobectomy procedures is always a scarce opportunity a thoracic surgeon will chase. The working hour regulations are problematic, because they limit the amount of time

available or learn the spectrum of diseases that are treated surgically and the development of new therapies [1]. For instance, dissemination of VATS lobectomy required that teachers learn first, bypassing the trainees on the easiest cases! The number of procedures required for a senior to be competent is difficult to appraise by simple assumption; in a recently published study, the senior surgeon became competent after thirty lobectomy procedures, but efficient only after ninety cases [2]. The era of uni-portal VATS lobectomy (UniVATS) has started since Diego

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Gonzalez performed his first case in 2010. Since that time, supporters of this approach claim that it could be a shift to a less invasive technique from the classic multiport VATS. This is not yet settled in terms of patient benefit but in Shanghai pulmonary hospital, this technique has been adopted and spread in training programmers since 2013. To investigate this technique a uniportal VATS interest group (UVIG) has developed from 40 experts in 18 countries. Very recently, the UVIG Consensus Report stated that UniVATS offers a valid alternative to standard VATS techniques. Only longer follow-up and randomized controlled studies will predict whether UniVATS represents a valid alternative approach to multiport VATS for major lung resections or whether it should be performed only in selected cases and by selected centres [3]. With the development of their training programme and with adopting a Chinese screening programme for lung cancer, Shanghai pulmonary hospital has shifted to become the largest thoracic surgery centre in the world providing a unique VATS lobectomy training for surgeons all over the world [4]. A thoracic surgeon visiting Shanghai pulmonary hospital for an intense VATS workshop has started in 2013. Since that date, surgeons from all over the world have unparalleled positive feedback about their visit to Shanghai and many of them report change of practice in their thoracic centres back home [5].

Travelling to the Legend of China

China is a great country that has lots of unique attractions other than history like food, drinks and even internet programs. Starting with the internet, most of the well-known apps you use might not work like Facebook, google, YouTube, Gmail and even play store. So, you must get to know how to handle without it or you can download and buy a VPN app before you come (most of the free app do not work and you must buy one if you want it to work preferably express VPN or GoTrust. Internet is available in most of the places mainly the hotel and hospital but if you like to go out with your apple maps (google map of course not working) and on the go internet then you will have to buy a Chinese SIM card for data and you can find it on the airport or you can ask in the hospital for help in buying one. Another option is to use internet roaming if not expensive for you. Remember that mostly you will need to have a pin drive or external hard drive to copy the videos of the operation and as it is recorded in HD then for 2 week of operation you might need 150-200 GBs, so we recommend that you brought at least the 500 GB drive. You can find it easily here and in reasonable price (see how to buy in china section later) near to the hospital or ask the course coordinator to help you in buying one. Mind you that most pin drive/ flash disk above 128 GB is fake so please invest your money in a good HDD instead. If you will give a lecture, then you might need your laptop with you and here remembers the day before the lecture to ask about the

connection needed to connect your device (they have it all but to prepare everything in advance). To use most of the public WIFI in outdoors you will need to get a verification code on your mobile so make sure you make roaming on your network before coming to china or use a Chinese SIM card. The most popular app here is named: "we chat". you can download it from play store or iTunes (mind you that google do not work here so play store is not working either and you must do this before you come here or download it from the website itself). Using us what you will find a group chat for the whole participant of the workshop and you can easily connect to people in hospital and hotel also. WeTransfer is another Chinese website for transferring till 2GB and it is fast and above all free

Training in the Largest Thoracic Surgery Centre in the World

Founded in 1933, Shanghai Pulmonary Hospital (Shanghai Pulmonary Hospital is affiliated to Tongji University and Shanghai Occupational Disease Prevention and Treatment Hospital). It is a modern tertiary level specialized teaching hospital with integrating medical, teaching and research functions. The hospital has continuously won the top ranked Chinese honors such as "Shanghai Civilized Unit" and "May Day Labor Medal of Shanghai". The hospital ranks among the best in the city in its assessment of the ethos of the Hong Kong government and has been ranked among the top 100 National Hospitals in the Fudan Hospital Management Institute for successive years. The hospital covers an area of 103,000 square meters, construction area of 88,000 square meters and is valued with a clean and tidy environment providing excellent facilities. As the "Shanghai Garden Unit," the tree lined Yejia Garden, which has been in existence for nearly a century, provides a beautiful and comfortable environment for the treatment and recuperation of patients (Figure 1).



Figure 1: The reflection of a very busy unit with medics on sight till late hours at night.

The hospital carries a great capacity of 1000 beds, 15 clinical departments, 11 medical departments and several research institutes in thoracic surgery, oncology, respiratory, tuberculosis and occupational diseases. Thoracic surgery Fudan Hospital Management Institute ranked third in the country. Respiratory Diseases Chinese hospital science and technology influence specialist ranked fourth in the country, Shanghai first. Tuberculosis Branch Chinese hospital science and technology influence specialist ranks second in the country. The hospital also undertook the task of nuclear emergency rescue and treatment and owned a national nuclear emergency medical rescue unit to successfully fulfill several major emergency rescue and rescue tasks. In 2016, the hospital provided outpatient and emergency services for 946681 patients, discharged 77579 patients, performed 10392 thoracic surgery cases with an average length of hospital stay of 5.34 days [6].

A Classic Day in Your Training Course

You move to hospital at 7:30am every day except the weekends. Hospital is a dedicated one for chest disease and thoracic surgery service with a thoracic surgery ward of 300 beds, 15 OR and approximate 80 cases operated per day (Figure 2).



Figure 2: Surgeries continuing for late times at the hospital.

Most of the operated cases are resection cases for lung cancer as they have a very active screening program, lots of GGOs here but also a variety of advanced and rare pathologies are on the list every day, subsequently most cases are done via VATS and most of this VATS case are done via uni-portal. This hospital serves mainly adult patients so most pathologies for younger patients are not operated here (Nuss, sequestered lobe, etc.), Esophageal cases are not done so frequent in this hospital. Typically, the day started at meeting room where you listen to the postoperative status of yesterday patients and discuss the cases for tomorrow followed by a lecture. After that the group heading to the OR, you

will be provided with a locker for your belonging for the whole workshop period just do not forget to return the key the last day before you leave. You will have the anteroom where you can rest and have coffee or tea in between operation and lunch also served there. For Muslims, please inform the course coordinator about you food preference on the first day of arrival and he will manage to arrange a HALAL food for your lunch every day and for other times u can easily download a HALAL in china or halal trip APP before you come here this app will provide you with a location map where is the nearest mosque and halal food to you. For veggie, u also have to ask the coordinator for veggie food and so far, I could not find an app for veggie but most of the noodle's shops serve a vegetarian version. Dinner is not provided but in 2 or 3 days during the course there is a dinner for the whole group with some of the hospital staff outside the hospital and it is a great experience to know people and other cultures (Figure 3).



Figure 3: A valuable social event where the hospital staff share the trainees in cultural tasted dinner.

Typically, there is no formal time to go out of hospital, workshop cases maybe end at 5-6pm and operation list continue maybe after midnight (Figure 3). If u want to join there will be no problem (we are talking about more than 80 cases every day in 14 OR). Most rooms can accommodate 5 visitors for every operation, some can only have 3 visitors, and some operations had the sign of "no visitor" either due to patient wish or potential infection so please have a look on the door before going in and count visitors inside. Hospital is 15 min walking distance from the hotel and in case u want to take a taxi it cost u about 15-25 RMBs and u can easily ask the hotel personal to write down the name of hospital in Chinese so you can show it to the driver as most of them do not speak or read English. On the way back from hospital use the hotel room card to show to driver it is written on Chinese on the backside. If you plan you stay outside the usual hotel for hosting the workshop attendant, you make sure you have the hotel name and address written in Chinese with you to show to taxi driver or people on the street to help you if you get lost. The area around the hospital is a student's friendly area as there is a university campus nearby so u will have lots of shops and restaurants all



around and one big mall (Wada plaza) about 1 Km from hospital and 2 technology malls nearby too (sunning and another one).

What about the city of shanghai

Avery beautiful, well organized city. All public transportation is provided with English translation so we can't get lost. The problem of that most people do not speak English can be overcome easily. For the subway/ metro, you may download (china metro) app. From store before you come. This app can trace you through GPS and locate the nearest station. It can also plan your trip and tell you which station we need to step down to change the line (there are nearly 12 lines covering all shanghai). Going around in shanghai is pretty easy either by taxi, metro or walking around. You can find all the must-see things in Trip Advisor or visit china app. shops mostly work until 9 pm and last metro about 10 pm but you can be late and get into a taxi easily just remember to have your address written in Chinese with you and ask the taxi driver to use taximeter before you get into it.

How Will You Spend Your Weekends

You can plan your weekend according to your preference, travelling to Beijing for more wide view of china with visiting the great wall and forbidden city, stay in shanghai visiting the old street and temples or enjoy a relaxation massage at a nearby spa shop. There is also a fast train going to Beijing in 5hr time (you may see it lot of time compare to a flight of 1:30 hr. but you have to remember that for a flight you have to be at airport 2 hr. before departure so it is nearly the same plus if you get into the morning train you will get a wonderful view of the countryside. - The bund, old city, people square are the places for gifts and nice walking around in shanghai. Contact the course coordinator in advance to help u to plan for your weekend and try first to get more information from the internet to get a prospect about prices and places.

Are You Looking for Shopping in China

Electronics in china is not as cheap as expect. You can always have some FAKE products with a very nice prices, but it will not be my recommendation for you as it will not last longer than your stay there mostly. Shanghai is famous with its silk industry and pearls, china in general famous with tea of different kinds and flavors, you can always have those things in genuine and in fake quality. If you go to a brand shop so you only have to buy what you told as prices are fixed but if you are in the markets, then you

can use a negotiation strategy as most shops are selling you in a higher than usual price. Best way to test is to see the item you prefer, ask for its price then look like get surprise with the price and say "expensive, thank you". then go away from the seller if he offers you a step down on the price then you know it is not the actual price, you can continue with this strategy and see how much less he offer you, if it was 25% less then you know that roughly the actual price will be 50% less from the first price he had given you and you have to go a little below this so you can get him right. If he offers like 10% only less, then mostly it is 75% of the original price. Some sellers are really good, they do not offer you a new price but instead they ask you to put the price you wish, then u have to be careful, either to go really down like 30% of the original or to leave him and ask on other shops to know the average negotiation price. After you already get the best price from the seller u can go more down if you offer to buy in cash instead of using visa (most market shops do not like to use visa and prefer cash even in euro or \$, so u can get the real best price. Finally, we hope this article has enlightened the benefit of training in Shanghai pulmonary hospital and helped to make your lifetime visit fruitful and memorable, all the best.

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