

Professor Lawrence H. Cohn: minimally invasive cardiac surgery

Submitted May 07, 2015. Accepted for publication May 15, 2015.

doi: 10.3978/j.issn.2223-3652.2015.05.09

View this article at: <http://dx.doi.org/10.3978/j.issn.2223-3652.2015.05.09>

Professor Lawrence H. Cohn (*Figure 1*), MD, is the Physician Director of Medical Device Technology for Partners HealthCare Systems and the Chair of the Physician and Scientist Fundraising Group at the Brigham and Women's Hospital.

Professor Cohn has performed over 10,000 cardiac surgical operations and is a world-renowned expert in the field of valve repair and replacement surgery and minimally invasive heart valve surgery. He has published lots of articles in many prestigious journals and authored numerous chapters in related medical textbooks.

During April 10th-12th, 2015, the 17th South China International Congress of Cardiology was held in Guangzhou Baiyun International Convention Center, China. At the first day of the congress, I was honored to meet Prof. Lawrence H. Cohn and had an interview with him after his speech on "The Future of Cardiac Surgery".

CDT: *You are an expert in minimally invasive cardiac surgery. Compared with the traditional cardiac surgery, what are the advantages and disadvantages of the minimally invasive one?*

Prof. Cohn: The main advantage is faster recovery on the patients and the cost is less expensive. It provides exactly the same result as the traditional open surgery does. We did a study after our first 100 patients underwent minimally invasive cardiac surgery. The study showed that, compared with patients underwent traditional open operation, these patients need less weeks to return to work and back to normal activity.

But the problem is that not every surgeon is trained in such area and not everyone wants to be trained in it. In my opinion, everyone should be trained in doing minimally invasive surgery.

CDT: *Since you are experienced in cardiac surgery, what is the most difficult problem you have ever met during operations?*

Prof. Cohn: The most difficult problem probably is that



Figure 1 Professor Lawrence H. Cohn.

to operate on a patient who has infection and the infection destroys the anatomy of the heart. It is very difficult for the patient get a good long-term result. Another kind of patient that is difficult to handle is intravenous drug abuser, which is a sociology problem.

CDT: *In your speech, you have said that some cardiac surgeries are very expensive in the US. And China has similar situation. Are there any ways to cut down this high cost?*

Prof. Cohn: Well, minimally invasive surgery cuts down the cost a lot. But some of the devices to perform the surgery are very expensive. The cost of the devices is up to the companies and I believe that competition and innovation will pull the prices down.

And we do have innovation in this area, for example, the catheter-based aortic valve replacement (AVR). It is a big innovation in the world and more companies are working on it. Once it comes into the market, the price of the surgery will go down. In addition, the minimally invasive devices have to be implanted earlier before the patient gets too sick. If he or she gets too sick, then the hospitalization becomes long and expensive.

CDT: *What do you think are key factors in performing a successful minimally invasive cardiac surgery?*

Prof. Cohn: You must know how to do the surgery. You have to learn it for a period of time. You get to work with people who have done minimally invasive cardiac surgery before. So observation and participation will make you do the surgery faster and better.

CDT: *In your opinion, what is the future development of hybrid technology in cardiac surgery?*

Prof. Cohn: The development of hybrid technology is a big deal, especially for the elderly patients, the number of which is increasing. So minimizing the trauma for such patients is very important. When you perform a hybrid on a patient, you put a stent in the coronary and then do the minimally invasive mitral valve repair (mini MVR). This is a big help to the elderly people.

CDT: *You said that innovation is very important for the healthcare. Are there any new technologies will be applied in the cardiac surgery?*

Prof. Cohn: The robotic technology is important, for instance, the robotic right hands. The important thing is that when you get a new technology, you have to continue to review the results to make sure whether this technology is good or bad. You are not just doing a marketing business. It is critical that the technology shows real improvement and quality.

Cite this article as: Xu EX. Professor Lawrence H. Cohn: minimally invasive cardiac surgery. *Cardiovasc Diagn Ther* 2015;5(5):412-413. doi: 10.3978/j.issn.2223-3652.2015.05.09

CDT: *Minimally invasive cardiac surgery has a short history in China. Do you have any suggestions to Chinese doctors working in this field?*

Prof. Cohn: I think Chinese doctors have to come to the US and go to the Europe to observe how people do the surgeries and to understand the advantages of the surgery. Many people now are doing robotic surgery. Now, there are 36 robotic centers in China. If you want to be effective, you have to work daily and make sure you are not doing for marketing but for an improvement of patient care. So you have to go to the best place that do this surgery, observe it and be trained.

CDT: *Thank you very much!*

Acknowledgements

On behalf of the editorial office of *Cardiovascular Diagnosis and Therapy (CDT)*, I would like to extend my gratitude to Prof. Cohn for sharing his opinion with us. Special thanks also go to my colleague Cecilia Jiang in assistance of transcribing the interview.

Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

(Senior Editor: Eunice X. Xu, CDT, editor@thecd.org)