Reflections on the first Cuba-US meeting of Cardiovascular Surgeons

Reflexiones sobre el primer encuentro de Cirujanos Cardiovasculares Cuba-Estados Unidos

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To the Editor:

The first Cuba-United States meeting of Cardiovascular Surgeons was recently hold, September 10-11, at the Hermanos Ameijeiras Hospital —two days of hard scientific work.

It was a very emotive meeting as it clearly reflected the desire for scientific exchange between both medical communities; with a greater emphasis on American achievements, because, as expected, their contributions are far greater than ours, precisely because of the development of their nation together with their skills and knowledge[1]. The event was held in the context of the recent restoration of diplomatic relations between our two countries, which were interrupted for many years.

We had the opportunity to listen to more than 10 US cardiovascular surgeons who delivered excellent lectures on current topics and explained what they do in their country and how they do it[2]. They were characterized by a great modesty and sensitivity in their exchange with Cubans, even by providing the opportunity for training and tutoring in their hospitals, an issue that —on the part of Cuba— will be carried out according to the will of the Ministry of Public Health, the only institution that can legally approve and manage these internships.

However, apart from their scientific knowledge, skills and training, their operating room equipment and the number of patients they have operated, we can say that the cardiovascular surgery performed by Cuban specialists, which is the basic, is not much different from the type of surgery they perform, for example:

- They perform coronary artery bypass surgery mainly with left internal mammary artery and saphenous vein.
- In valve replacement surgery, despite having several choices in terms of prosthetic replacements, the technique they use is basically like ours (open surgery).
- Cannulae for cardiopulmonary bypass are like ours but they have no need to reuse them; and the cardioplegia commonly used is also similar to ours, with potassium and hematic excipient, and anterograde or retrograde approaches depending on the patient.
- They perform the surgery of the ascending aorta more frequently, especially with the use of Bentall-De Bono procedure.

On the other hand, we are behind them in several respects:

- Minimally invasive and video-endoscopic surgery is often performed in their operating rooms, and for some of them it is their specialty. In our country, these procedures have only been performed in isolated cases[3,4].
- The impressive robotic surgery, practiced by some of them and with great skill.
- The impressive performance of hybrid surgery of the ascending aorta and aortic arch, with possibility of prosthetic replacements and excellent training.
- The efficient supply in terms of types of valve prostheses, including some that are mechanical but require much lower prothrombin time and therefore low doses of warfarin, if such anticoagulants were used; as they have the new oral anticoagulants that do not even require the determination of the INR (international normalized ratio)[5].
- The possibility to have laboratory cardiovascular surgery; that is, on the one hand, experimental surgery with physical and digital models for this purpose, and on the other hand, tissue engineering with matrices for tissue implantation and growth — tissue that is subsequently implanted, such as valves or organs— and the existence of tissue banks in their hospitals[6].

It was also important the discussion and sharing of ideas outside the scientific sessions, after which all participants concluded that there is an urgent need for:

- Learning and practicing, with excellence, the basic surgery that is performed in any operating room around the world.
- Developing and making available to patients more complex techniques such as mitral valve repair in degenerative or myxomatous mitral regurgitation, surgery of the ascending aorta and aortic arch, and endovascular surgery for hybrid procedures, which provide solutions to aortic dissection and allow the development of techniques such as elephant trunk and video-assisted minimally invasive surgeries that require more complex equipment and specialized training in performing endoscopic saphenectomy, drainage of pericardial effusions, placement of permanent epicardial electrodes, pericardial-pleural windows, only mention the simplest ones, because

the rest are not a daily practice, not even in their country.

Likewise, technological and surgical advances were discussed and the issue of practicing the basic part of cardiovascular surgery with excellence was also address:

- Training of the surgeon to perform prosthetic mitral valve replacement in a short surgical time, before mastering mitral valve repair.
- Correct valve replacement rather than a repair surgery without quality.
- Impossibility of using the robot and performing minimally invasive and endoscopic surgery without having practiced open surgery before.
- Show respect for those who perform complete arterial revascularization with both mammary arteries; although they do not frequently use it, as they perform it with cardioplegic cardiac arrest, with good results, backed up by their years of experience and monitoring of patients.

Finally, we may state that the last word on coronary surgery has not been said. The precept that guides all Cardiovascular Surgery specialists must be taking on everything that can be perform in each department with the objective of achieving a higher survival rate, and a better quality of life and functional class, without neglecting the monitoring of these patients, as each technique needs to be examined with the passing of time.

On the other hand, at least in our country, ischemic heart disease is being diagnosed in increasingly younger generations. This situation might lead to the need of new surgery to alleviate the disease while the scientific community tries to find the cure through tissue and genetic engineering[7]. Obviously there are differences between the American and Cuban population. From a demographic point of view, in the United States patients aged 70, 80 and even 90 years are frequently operated on, but not here in our country.

So, in coronary surgery as a palliative treatment of ischemic heart disease, it is generally believed that the guarantee is a good revascularization of the left anterior descending artery, which is regarded as the golden vessel[8].

Similarly, it was concluded that scientific exchange is essential to improve the healthcare of the people and to make available to them many of these technologies. The need of a leap in quality that impacts the development of cardiovascular surgery in the country was also highlighted.

So, we would like to thank, through the journal CorSalud, the exchange with these cardiovascular surgeons, especially their teachings, courage and modesty, as well as their kindness and love for science and for the human race. The call will always be to have their help, especially in the training of complex procedures to practice basic cardiovascular surgery with excellence in our specialized health units.

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