



Notes and testimony about coronary artery bypass graft surgery

Apuntes y testimonio acerca de la revascularización miocárdica quirúrgica

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By the middle of last century surgeons began to address heart diseases¹. Initially, congenital anomalies and valve distortions caused by the rheumatic disease, to finally face the ischemic heart disease. This last one is a condition that appears basically due to the occlusive deterioration in the coronary arterial tree, which irrigates the heart and that, nowadays, is the first cause of death for all ages in both, our country and the developed world². The causes are the population aging and the atherosclerosis' acceleration due to several chronic non-communicable diseases, and some other risk factors, such as the very harmful smoking habit, obesity and sedentary lifestyle, all of them being a result of the modern lifestyle.

The coronary artery bypass graft surgery emerged as a response to the ischemic heart disease. Initially, with the implantation of a systemic artery inside of the heart muscle, later with the anastomosis of the venous grafts, as a bypass conduit to the coronary arteries and finally, with the anastomosis of the


mammary arteries to the coronary arteries seriously obstructed due to atherosclerosis^{1,3}.

In the current issue of CorSalud, there is one article where its authors review the coronary artery bypass graft surgery's history and they deepen, specifically, in the "Internal mammary artery harvesting in cardiac surgery: an often mistold story"⁴, among the many techniques used over the years for the optimization of the internal mammary arteries (IMA) dissection, aiming to improve the quality results and life expectancy of the patients with ischemic heart disease at risk of suffering infarctions and death.

It is an excellent article, of high value, which significantly enriches the knowledge about the researching necessity in the field of the coronary artery bypass graft surgery's history, which is nowadays the most frequent cardiac surgery in our country and all over the world.

That is why I would like to contribute providing some historical data that might enrich the subject.

I would like to point out that, the specialized literature confers to the Russian surgeon Vasili I. Kolesov, the fact of having successfully sutured, for the first time, the anastomosis of the right internal mammary artery to the right coronary artery, without the support of cardiopulmonary bypass (CPB), on February 25, 1964, although the details of the IMA dissection were not described. Later, in 1968, George Green carried out in New York, the anastomosis of

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the left IMA to the left anterior descending (LAD) artery in an apparently pedicled method.

In Cuba, Julio Taín Blázquez and collaborators –the author of this article among them–, started, at the *Instituto de Cardiología y Cirugía Cardiovascular (ICCCV)*, in the second semester of 1979, the coronary artery bypass graft surgery, and we used the internal saphenous vein anastomosed to the LAD artery as a bypass graft, in a heart stopped by induced ventricular fibrillation and CPB support. This procedure became a routine from the 80's on, to which the arterial grafts were added.

On October 24, 1996, the coronary artery bypass graft surgery technique with anastomosis of the IMA to the LAD artery in a beating heart and CPB support⁶ was introduced by Angel Paredes Cordero and collaborators, the same team that, in June 2002, in the very same ICCCV, introduced the skeletonization of the IMA for its anastomosis to the LAD artery⁷.

CONFLICT OF INTERESTS

None declared.

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