Letter to the Editor

Composite graft using the gastroepiploic artery, regarding the study design

Hitoshi Hirose*, Atsushi Amano
Department of Cardiovascular Surgery, Cleveland Clinic Foundation and Juntendo University Hospital, 9500 Euclid Avenue, Cleveland, OH 44195, USA

Received 1 August 2002; accepted 4 September 2002

Keywords: Radial artery; Gastroepiploic artery; Vasospasm

I read with great interest the paper on randomized study of composite grafting of the radial artery (RA) versus gastroepiploic artery (GEA) by Dr Santos [1]. I have several questions about this randomized study.

As Dr Santos stated in the paper, the GEA is known to be a very fragile graft, prone to vasospasm. We recently published our series on GEA grafting [2], although we used the GEA as an in situ graft, our patency rate within 1 year after surgery was 97.1%, and the stenosis-free patency rate was 88.9%. The early stenosis rate of the GEA was 8.2%, which was much higher than the other grafts, and some of these stenoses were related to spasm.

Dr Santos demonstrated that the early angiographic patency rate of GEA was 68.9%, and some of the graft occlusions were related to spasm. The number of occlusions was, for me, unacceptably high. Although the authors did not mention their saphenous vein patency rate, I assume their GEA patency rate may be significantly lower than that of the saphenous vein graft. The vasospasm of the GEA was already mentioned in another paper [3], and the use of the free GEA was not recommended due to the high frequency of vasospasm [4].

Another issue regarding this paper is that the percentages of the patients with diabetes were relatively low (20.0% in the GEA group and 26.7% in the RA group) and that the age of the study group was relatively young (56.0 in the GEA group and 26.7% in the RA group). From my point of view, the group and 55.7 in the RA group). From my point of view, my internal review committee gave permission to their study protocol: Why was the GEA used for composite grafting of the radial artery unless someone presented good graft patency with composite GEA grafting?

Dr Santos performed all these cases under cardiopulmonary bypass, disregarding the advantage of composite grafting. I also cannot agree with the routine composite grafting of the GEA with the IMA, unless someone presented good graft patency with composite GEA grafting.

Dr Santos stated that Ethical Research Committee agreed to this trial based on their preliminary data (patency rates of 96% of the RA and 88% of the GEA). However, they did not mention how many patients underwent angiography for the preliminary data, or how many of the patients received the composite grafts. I understood that all studied patients consented prior to the randomization, but I cannot agree with their study protocol: Why was the GEA used for composite grafting even though the preliminary data suggested a lower patency rate for the GEA than the RA? Why did the patients undergo on-pump bypass? Why did the patients not receive bilateral internal mammary artery grafting? Also, why did their internal review committee give permission for proceeding with this trial.

References


* Corresponding author. Cardiovascular Surgery, Cleveland Clinic Foundation, F25, 9500 Euclid Avenue, Cleveland, OH, 44195 USA. Tel.: +1-216-445-6816; fax: +1-216-707-9446.

E-mail address: genesx@nifty.com (H. Hirose).

PII: S1010-7940(02)00573-0