116 Letters to the Editor Anatol J Cardiol 2019; 21: 114-22

ity to decrease or increase their diameter over-time to match the target vessel. Therefore, arterial grafts do not have stagnation because of diameter mismatch. The length of the anastomosis is also an important factor to determine the patency of the graft because it affects the amount of rotation of the flow.

The long-term patency of the saphenous vein grafts, harvested above and below the knee, is another issue. In the erect position, the venous pressure in the ankle can reach up to 150 mm Hg. Therefore, the veins harvested under the knee are adaptive to more pressure (unlike the veins harvested above the knee), and they are also more adaptive to the arterial flow. This may increase long-term patency. Thus, we believe that this parameter should also be considered.

D Habib Çakır, D İsmail Yürekli, D Börteçin Eygi, Kamil Aşar*,
D Mert Kestelli

Departments of Cardiovascular Surgery, and *Anesthesia, İzmir Katip Çelebi University Atatürk Training and Research Hospital; İzmir-*Turkey*

Reference

Tinica G, Chistol RO, Enache M, Leon Constantin MM, Ciocoiu M, Furnica C. Long-term graft patency after coronary artery bypass grafting: Effects of morphological and pathophysiological factors. Anatol J Cardiol 2018; 20: 275-82.

Address for Correspondence: Dr. Habib Çakır,

İzmir Katip Çelebi Üniversitesi, Atatürk Eğitim ve Araştırma Hastanesi, Kalp ve Damar Cerrahisi Kliniği,

İzmir-*Türkiye*

Phone: +90 532 485 90 51

E-mail: habibcakir35@hotmail.com

©Copyright 2018 by Turkish Society of Cardiology - Available online

at www.anatoljcardiol.com

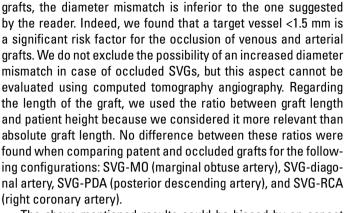
DOI:10.14744/AnatolJCardiol.2018.09803

Author's Reply

To the Editor,

We thank the reader for his interest in our study (1) on the influence of the morphological and pathophysiological factors upon graft patency. We agree that the diameter of normal saphenous veins is superior to that of normal coronary arteries. At the same time, there are also anatomical variations related to the studied population, harvested segment, and postoperative time interval.

In our case, 163 (91.06%) of saphenous vein grafts (SVGs) were harvested below the knee. Patent SVGs had a mean diameter of 3.55±0.76 (1.8–6) mm compared to a mean diameter of 2.14±0.52 (1–5) mm for the target coronary artery at 139.78±36.64 months post-coronary artery bypass grafting (CABG). In case of patent



The above-mentioned results could be biased by an aspect that we were unable to estimate and is still incompletely clarified in the international literature, namely postoperative morphological and histological changes of SVGs.

According to Fitzgibbon et al. (2), approximately 10% of SVGs occlude in the first year after which there is a continued attrition, which accelerates as grafts age. Fan et al. (3) who compared the long-term failure of SVGs with the left internal mammary artery (LIMA) graft, affirm that there is a decrease in lumen size in the entire SVG and anastomosis of different patients in a sequence of ~1, 5, and 10 years postoperatively despite negligible changes in the size of the LIMA. Suzuki et al. (4) evaluated 65 SVGs at 1 year after CABG and found that minimal and mean lumen diameters together with SVGs length significantly decreased. The graft shortening rate was reported to be >5% in 51% of cases and >10% in 35% of cases.

In conclusion, there is a possibility that SVG length and diameter decrease in the long-term due to wall changes and hemodynamic adaptation as well as the presented results do not reflect SVGs parameters during surgery.

We will further investigate the aspects suggested by the reader by reviewing the early postoperative angiograms of the analyzed patients (where available) and comparing the results with those obtained in the current study to assess SVG attrition mechanism and causes.

- © Grigore Tinica¹², © Raluca Ozana Chistol³, © Mihail Enache¹²,
- 🗅 Maria Magdalena Leon Constantin45, 歱 Manuela Ciocoiu6,
- Cristina Furnica^{7,8}

¹Department of Cardiovascular Surgery, "Prof. Dr. George I.M. Georgescu" Cardiovascular Diseases Institute; Iasi-*Romania*²Department of Cardiac Surgery, "Grigore T. Popa" University of Medicine and Pharmacy: Iasi-*Romania*

³Department of Medical Imaging, "Prof. Dr. George I.M. Georgescu" Cardiovascular Diseases Institute; Iasi-*Romania*

⁴Department of Medical Rehabilitation, Clinical Rehabilitation Hospital; Iasi-*Romania*

⁵Department of Internal Medicine, "Grigore T. Popa" University of Medicine and Pharmacy; lasi-*Romania*

⁶Department of Physiopathology, "Grigore T. Popa" University of Medicine and Pharmacy; Iasi-*Romania*

⁷Institute of Forensic Medicine; lasi-Romania

⁸Department of Anatomy, "Grigore T. Popa" University of Medicine and Pharmacy; lasi-*Romania*



Anatol J Cardiol 2019; 21: 114-22 Letters to the Editor 117

References

- 1. Tinica G, Chistol RO, Enache M, Leon Constantin MM, Ciocoiu M, Furnica C. Long-term graft patency after coronary artery bypass grafting: Effects of morphological and pathophysiological factors. Anatol J Cardiol 2018; 20: 275-82. [CrossRef]
- Fitzgibbon GM, Kafka HP, Leach AJ, Keon WJ, Hooper GD, Burton JR. Coronary bypass graft fate and patient outcome: angiographic follow-up of 5,065 grafts related to survival and reoperation in 1,388 patients during 25 years. J Am Coll Cardiol 1996; 28: 616-26. [CrossRef]
- Fan T, Feng Y, Feng F, Yin Z, Luo D, Lu Y, et al. A comparison of postoperative morphometric and hemodynamic changes between saphenous vein and left internal mammary artery grafts. Physiol Rep 2017; 5: pii: e13487. [CrossRef]
- Suzuki N, Kozuma K, Ueno Y, Nagaoka K, Kyono H, Ishikawa S, et al. Serial quantitative coronary analyses for the evaluation of one-year change in saphenous vein grafts. Ann Thorac Surg 2008; 85: 525-9.

Address for Correspondence: Raluca Ozana Chistol, MD,

Department of Medical Imaging,

"Prof. Dr. George I.M. Georgescu" Cardiovascular Diseases Institute;

50 Carol I Bvd., 700503,

lasi-*Romania*

Phone: 0040-740-811802 Fax: 0040-232-410280

E-mail: ralucachistol@gmail.com

©Copyright 2018 by Turkish Society of Cardiology - Available online

at www.anatoljcardiol.com

Predictive factors for longer length of hospital stay in patients with heart failure

To the Editor,

I have read the article by Kato et al. (1) entitled "Higher diuretic dosing within the first 72 h is predictive of longer length of stay in patients with acute heart failure" which was published in Anatol J Cardiol 2018; 20: 110-6, with great interest. In their study, authors reported that higher diuretic dosing in the first 72 h of hospitalization was an independent predictor of longer length of hospital stay in patients with acute heart failure. In addition, they concluded that there could be important predictors of the length of hospital stay that were not included in their study. Beside this, they reported that laboratory data of patients, including serum sodium level and cardiac troponin values, were recorded on admission and during the first 72 h of hospitalization (1). I would like to emphasize some important points about this well-written study.

It has been demonstrated that cardiac troponin is an important marker for the prognosis of acute heart failure. In previous studies, it has been shown that an elevated cardiac troponin level on admission has been associated with increased length of hospital stay (2, 3). Moreover, hyponatremia is a common electrolyte disorder in patients with heart failure. It has been reported that patients admitted with hyponatremia show increased hospital mortality

and rates of longer hospital stay (4). Therefore, I wish to ask the authors why they did not mention about serum sodium levels and cardiac troponin values of patients in baseline characteristics and did not use these parameters in the statistical evaluation, although they possessed the data for these parameters.

Further, the presence of edema at admission and the change in weight during hospitalization are major factors influencing the length of hospital stay in patients with heart failure (5). I believe that the aforementioned factors should be considered to verify the predictive value of higher diuretic dosing within the first 72 h on hospital stay in patients with acute heart failure.

Can Ramazan Öncel

Department of Cardiology, Faculty of Medicine, Alanya Alaaddin Keykubat University; Antalya-*Turkey*

References

- Kato H, Fisher P, Rizk D. Higher diuretic dosing within the first 72 h is predictive of longer length of stay in patients with acute heart failure. Anatol J Cardiol 2018; 20: 110-6.
- Parenti N, Bartolacci S, Carle F, Angelo F. Cardiac troponin I as prognostic marker in heart failure patients discharged from emergency department. Intern Emerg Med 2008; 3: 43-7.
- La Vecchia L, Mezzena G, Zanolla L, Paccanaro M, Varotto L, Bonanno C, et al. Cardiac troponin I as diagnostic and prognostic marker in severe heart failure. J Heart Lung Transplant 2000; 19: 644-52.
- Ali K, Workicho A, Gudina EK. Hyponatremia in patients hospitalized with heart failure: a condition often overlooked in low-income settings. Int J Gen Med 2016; 9: 267-73.
- Wright SP, Verouhis D, Gamble G, Swedberg K, Sharpe N, Doughty RN. Factors influencing the length of hospital stay of patients with heart failure. Eur J Heart Fail 2003; 5: 201-9.

Address for Correspondence: Dr. Can Ramazan Öncel,

Alanya Alaaddin Keykubat Üniversitesi,

Tıp Fakültesi,

Kardiyoloji Anabilim Dalı,

Antalya-*Türkiye*

E-mail: can.oncel@alanya.edu.tr / r_oncel@hotmail.com

©Copyright 2018 by Turkish Society of Cardiology - Available online

at www.anatoljcardiol.com

DOI:10.14744/AnatolJCardiol.2018.77270



Length of hospital stay, diuretic dosing, and regression strategies

To the Editor,

In previous issues of the journal, we read with great interest the article by Kato et al. (1) entitled "Higher diuretic dosing within the first 72 h is predictive of longer length of stay in patients with acute heart failure" published in Anatol J Cardiol 2018; 20: 110-6.