

operative risk, MR severity, and likelihood of MR improvement after isolated aortic valve replacement. In a single-center study of transcatheter MVR with MitraClip (Abbott, Santa Clara, CA), Thaden and associates [5] reported that MAC, an increased preoperative mean diastolic gradient between the left atrium and left ventricle, and the use of multiple clips were significant determinants of increased postprocedural mean diastolic gradient.

In conclusion, TA-MVR should be performed in selected patients with anatomic features suitable for the application of the edge-to-edge technique.

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References

1. Mihos CG, Xydas S, Nappi F, Santana O. Transaortic Alfieri repair for secondary mitral regurgitation: effective and underused (letter). *Ann Thorac Surg* 2018;106:1264.
2. Imasaka KI, Tayama E, Morita S, Toriya R, Tomita Y. Transaortic Alfieri edge-to-edge repair for functional mitral regurgitation. *Ann Thorac Surg* 2018;105:e141–3.
3. Mihos CG, Santana O, Lamelas J. Intermediate results of transaortic edge-to-edge repair of the mitral valve in patients undergoing aortic valve replacement. *J Heart Valve Dis* 2014;23:91–6.
4. De Bonis M, Lapenna E, Pozzoli A, Giacomini A, Alfieri O. Edge-to-edge surgical mitral valve repair in the era of MitraClip: what if the annuloplasty ring is missed? *Curr Opin Cardiol* 2015;30:155–60.
5. Thaden JJ, Malouf JF, Nkomo VT, et al. Mitral valve anatomic predictors of hemodynamic success with transcatheter mitral valve repair. *J Am Heart Assoc* 2018;7:e007315.

Combined Rehabilitation and Nutritional Coaching After Cardiac Surgery: Sex Differences



To the Editor:

We have read with great interest the paper, “A Novel Risk Score to Predict the Need for Nutrition Support After Cardiac Surgery,” by Ohkuma and colleagues [1] and find it important with a view to clinical prevention. These authors developed and validated a prediction score designed to stratify patients immediately after cardiac surgical procedures according to risk for nutrition support.

With reference to the findings reported in the paper, we would like to make the following contribution to the discussion. Recently, we evaluated changes in anthropometric and biochemical factors in patients undergoing nutritional education meetings during postsurgical rehabilitation.

We enrolled 51 patients (10 women), who were followed for 3 months. At baseline, their mean weight was 75.2 ± 12.5 kg, and after 3 months it was 75.9 ± 12.9 kg ($p = \text{NS}$ [not significant]). Body mass index was unchanged (26.7 ± 4 vs 26.9 ± 4.1). Blood glucose levels normalized from 114.4 ± 35.8 mg/dL to 106.8 ± 23.5 mg/dL ($p < 0.01$). Serum iron levels increased from 36.7 ± 17.3 μg/dL to 47.4 ± 14.7 μg/dL ($p < 0.001$).

Despite the low number of women involved in the study, we found that women undergoing nutritional coaching during

rehabilitation showed a general improvement in anthropometric and biochemical factors. The improvement in biochemical factors was related to the general switch of dietary habits from a Western-like diet to a Mediterranean diet, as shown by the results of nutritional investigation. Food analysis found that total calories were slightly increased; however, women were consuming more fruit and vegetables compared with men. It has been suggested that synergy among the antioxidant-rich foods of the Mediterranean diet fosters favorable changes in intermediate pathways of cardiometabolic risk factors such as blood lipids, insulin sensitivity, resistance to oxidation, inflammation, and vasoreactivity [2–4]. We think that the beneficial effects of the Mediterranean diet would help patients during rehabilitation to prompt recovery of cardiac function and to prevent recurrences.

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References

1. Ohkuma RE, Crawford TC, Brown PM, et al. A novel risk score to predict the need for nutrition support after cardiac surgery. *Ann Thorac Surg* 2017;104:1306–12.
2. Mattioli AV, Coppi F, Migaldi M, Scicchitano P, Ciccone MM, Farinetti A. Relationship between Mediterranean diet and asymptomatic peripheral arterial disease in a population of pre-menopausal women. *Nutr Metab Cardiovasc Dis* 2017;27:985–90.
3. Mattioli AV, Bonetti L, Zennaro M, Bertoncelli P, Mattioli G. Acute myocardial infarction in young patients: nutritional status and biochemical factors. *Int J Cardiol* 2005;101:185–90.
4. Farhangi MA, Najafi M, Jafarabadi MA, Jahangiry L. Mediterranean dietary quality index and dietary phytochemical index among patients candidate for coronary artery bypass grafting (CABG) surgery. *BMC Cardiovasc Disord* 2017;17:114.

Minimally Invasive Repair of Pectus Carinatum: Bar Number and Technique



To the Editor:

We read with interest the article by Yuksel and colleagues [1]. Although we appreciate the authors' method, we have some questions about its effectiveness.

In the method reported by Yuksel and colleagues [1], only one metal bar is used. We think that this is the basic cause of wire breakdown and rib fracture. The age range of their patients was 10 to 35 years (mean, 17.3 years), and there were a number of adolescent and even adult patients in this cohort. For patients with large and serious protrusions, if only one bar is used, too much strength will cause wire breakdown and rib fracture, which will inevitably affect the operative outcome. Additionally, the methods of Yuksel and colleagues [1] were used in two types of pectus carinatum, including the asymmetric type. According to our experience and that of