

The impact of body mass index on mortality and morbidity in patients undergoing isolated valve surgery

İzole kapak cerrahisi uygulanan hastalarda vücut kütle indeksinin mortalite ve morbidite üzerine etkileri

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Dear Editor,

We would like to congratulate Gur et al.^[1] for their fluent and impressive original manuscript titled “The impact of body mass index on mortality and morbidity in patients undergoing isolated valve surgery”. Contrary to popular belief, a substantial number of studies have been performed in patient groups with high body mass index who underwent isolated valve surgery, in particular.^[2,3] One of the most remarkable studies is the study conducted by Thourani et al.,^[3] between 1996 and 2008 which included a total of 4,247 patients. In addition to the evaluation of early morbidity and mortality of the morbidly obese patients who underwent valve surgery, those patients were also followed over 10 years. The results of the study, particularly, emphasized the increased early and late morbidity and mortality rates in patients with a body mass index of 36 and more.^[3] The most critical point in this manuscript was that performing the valve surgery with minimally invasive technique in morbidly obese patients with high risk factors would be more appropriate.^[3]

In the review of the manuscripts related with isolated valve surgery with minimally invasive technique, it is found that in the series carried out by Santana et al.^[4] comprising of 160 obese patients who underwent isolated valve surgery, 64 patients were

operated by using minimally invasive technique, and 96 patients were operated by using classical median sternotomy technique. Morbidity and mortality were found to be markedly lower in the patients who underwent isolated valve surgery using minimally invasive technique, compared to the patients who underwent the operation in which classical median sternotomy was used.^[4]

Reser et al.^[5] also compared the two approaches in a series of 225 obese patients and reported that the morbidity and mortality rates were significantly lower in the minimally invasive approach, compared to the other method.

We adopt the minimally invasive technique in our clinic to reduce the morbidity and mortality rates in such high-risk patients. We prefer J, L or inverse T sternotomy partially in the approach to the aortic valve and right anterolateral minithoracotomy in the approach to mitral valve. We performed arterial cannulation directly through the ascending aorta and venous cannulation through the right femoral and right internal jugular veins. We consider that the exposure of the mitral valve through right thoracotomy, in particular, is better compared to the classical median sternotomy and therefore this approach offers remarkable benefits to the surgeon during the repair of the valve. Did you also use minimally invasive approach in those risky groups? We would like to hear your opinion on the option of minimally invasive approach in those high-risk patient population.

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REFERENCES

1. Gür Ö, Gürkan S, Özkaramanlı Gür D, Yüksel V, Hüseyin S, İşcan S, et al. The impact of body mass index on mortality



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- and morbidity in patients undergoing isolated valve surgery. Turk Gogus Kalp Dama 2013;21:924-9.
2. Vaduganathan M, Lee R, Beckham AJ, Andrei AC, Lapin B, Stone NJ, et al. Relation of body mass index to late survival after valvular heart surgery. Am J Cardiol 2012;110:1667-78.
 3. Thourani VH, Keeling WB, Kilgo PD, Puskas JD, Lattouf OM, Chen EP, et al. The impact of body mass index on morbidity and short- and long-term mortality in cardiac valvular surgery. J Thorac Cardiovasc Surg 2011;142:1052-61.
 4. Santana O, Reyna J, Grana R, Buendia M, Lamas GA, Lamelas J. Outcomes of minimally invasive valve surgery versus standard sternotomy in obese patients undergoing isolated valve surgery. Ann Thorac Surg 2011;91:406-10.
 5. Reser D, Sündermann S, Grünenfelder J, Scherman J, Seifert B, Falk V, et al. Obesity should not deter a surgeon from

selecting a minimally invasive approach for mitral valve surgery. Innovations (Phila) 2013;8:225-9.

Author's Reply

Dear editor,

Of the patients whom we performed valve surgery, a few were within the obese patient group and we did not perform a minimally invasive approach in these patients. I do not believe that this contribution is connected to our study. This may be the subject of another study.

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