

conduction disturbances after rapid-deployment aortic valve implantation and predictive factors for early PPI.<sup>4</sup> A higher incidence of PPI was observed in patients with preexisting conduction disturbances, especially right bundle branch block. Therefore to reduce the rate of PPI and benefit from the advantages of a rapid-deployment aortic valve replacement, as improved valve hemodynamics and reduced cross-clamp times, careful preoperative screening and patient selection should be performed.

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### Graft Insertion Technique to Obtain Better Surgical Field



#### To the Editor:

I read the article by Bakhtiary and colleagues<sup>1</sup> with great interest. They described a modified technique of reconstruction for extensive infective endocarditis. I would like to congratulate the researchers for this contribution to the extremely difficult surgical field.

I am pleased that their modified aortic reconstruction, which is the most modified part compared with a previous report<sup>2</sup> for infective endocarditis, is similar to our graft insertion technique reported in 2011.<sup>3</sup> However, I regret that our previous report escaped their references. We also mentioned the graft insertion technique can be applied together with atrioventricular reconstruction, which is almost the same reconstruction as they described.

Our graft insertion technique includes inverted-graft insertion into the left ventricular outflow tract to make a deep sawing onto the outflow tract myocardium. Bakhtiary and colleagues<sup>1</sup> used double-row running suture to secure the graft anastomosis onto the left ventricular outflow tract, whereas we used

interrupted horizontal mattress sutures plus single-row running suture. As we have applied this graft insertion technique in more than 15 patients, we believe with the horizontal mattress plus running suture it is easier to make deep well-balanced anastomosis between the graft and thick left ventricular outflow tract myocardium.

I hope Bakhtiary and colleagues will enjoy reading our report.

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### Modified Reconstruction of Left Ventricular Outflow Tract Till Proximal Ascending Aorta as Reversed Elephant Trunk in Extensive Infective Endocarditis Surgery



#### Reply

##### To the Editor:

We would like to thank Dr Nakamura<sup>1</sup> for his letter regarding our paper<sup>2</sup> entitled "Modification of reconstruction of intervalvular fibrous body for extensive infective endocarditis." We really appreciate his comment raised about our paper, and we are more than happy to answer him.

Dr Nakamura made the point that we have not have cited the article by Nakamura and colleagues<sup>3</sup> in our references and claimed that his graft insertion technique is similar to our modification technique. However, our technique is different by not only strengthening the aortic annulus with the graft but by also inserting the graft and placing it along the entire left ventricular outflow tract (LVOT) as a reversed elephant trunk. After suturing the graft to the myocardium, we pull the inner graft out, performing concurrently the new LVOT, aortic root, and proximal ascending aorta. The technique of Nakamura and colleagues<sup>3</sup> used the inverted graft to create and stabilize only the aortic annulus and not the whole LVOT with the graft. Particularly in endocarditis, we believe that inserting a prosthesis into the LVOT leads to more stabilization of the LVOT and aortic annulus by reducing pressure on native tissue in this field of the heart.

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## Pause Ventilation Tracheostomy



To the Editor:

We excitedly read the article about the novel percutaneous dilatational tracheostomy (PDT) technique developed by Angel and colleagues.<sup>1</sup> In the coronavirus disease 2019 pandemic, in which the discussions of timing and technique (surgery or percutaneous) for tracheostomy continue, this novel technique has guided us all. However, that bronchoscopy is a procedure that requires experience and equipment may be considered the limitation of this technique. Bronchoscopy is not performed regularly in every intensive care unit in our country. Therefore, alternative methods are needed for PDT in the coronavirus disease 2019 pandemic.

For the PDT procedure without bronchoscopy, we used the method we defined as pause ventilation tracheostomy. First, the operations to be performed during PDT were planned, the task of the personnel was defined, and the necessary materials were prepared. In the intensive care unit, there were only 3 people in the patient's room: 2 experienced people to perform the procedure and 1 person to manage the airway. A team outside the room was present throughout the procedure to assist in possible management of complications and supply materials and medicine. They all had full personal protective equipment. Starting 5 minutes before the procedure, preoxygenation of the patient was achieved with 100% FiO<sub>2</sub>. Standard preparations for the PDT (shoulder roll placement, sedation, paralytics, and so on) after an anterior neck ultrasound were performed to identify the site of insertion between the first and second tracheal rings. An endotracheal tube (ETT) was placed below the vocal cords. The ETT cuff was checked to ensure there were no leaks throughout the procedure. Lidocaine with epinephrine was used as local anesthetic before we began any instrumentation. Then, we performed the PDT. First, a superficial small skin incision was made and the pretracheal tissue was cleared with blunt dissection. After we entered the trachea with the needle, mechanical ventilation was stopped after an exhalation. The exhalation side with a high-efficiency particulate air filter of the breathing set was separated from the mechanical ventilator machine so that it was less than half of the expiratory time and the ETT was clamped. A guide wire was placed and tracheal dilation was performed. Then a tracheostomy tube was placed. After the tracheostomy tube cuff was filled, mechanical ventilation was initiated. Paused ventilation lasted for about 41 seconds and the patient did not develop hypoxemia. After the procedure, PaO<sub>2</sub> was evaluated as 168 mm

Hg and PaCO<sub>2</sub> was 41 mm Hg in arterial blood gases. After the procedure, it was confirmed with ultrasonography that atelectasis did not develop. No symptoms related to severe acute respiratory syndrome coronavirus 2 were observed in any health care providers after the procedure.

Pause ventilation tracheostomy may be an alternative method in intensive care units without bronchoscopy in eligible patients. Controlled studies are needed to determine the reliability of this technique.

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## Leveraging Scarcity to Optimize Value and Clinical Operations



Reply

To the Editor:

We appreciate the kind letter from Gürsoy and colleagues<sup>1</sup> in reply to our paper.<sup>2</sup> Infrastructure and resources dictate day-to-day clinical operations. There is little doubt that when both of these are limited, they conspire to create obstacles to patient care and workflow. Culture and innovation trump most infrastructure limitations. Said another way, I would be more likely to hire the child of a poor family over one in a rich one with all qualities being equal because of the assumed difference in their cultural backgrounds.

Those countries that have the least resources are often the most innovative. Management via scarcity presents great value to all members of any society. I appreciate Dr Gürsoy's perspective about performing percutaneous dilatation tracheostomy without using a bronchoscope. Is it possible? Yes. Is it optimal? No. Do we recommend it? No. Does it maximize patient safety? Probably not.

The authors state, "Bronchoscopy is not performed regularly in every intensive care unit in our country." This is also true for our institution here at New York University Langone Health System. Nor does one need a bronchoscope for each unit. One only needs to figure out how to operationalize having one available for emergencies (obstructed airways from secretions) and also available for elective procedures such as a percutaneous tracheostomy.

The authors describe a technique that is essentially identical to ours except they do not use a bronchoscope to help guide the needle entry into the trachea at the 12 o'clock position. The main disadvantage with their technique is that even with palpation and preprocedure ultrasound one cannot prevent improper tracheal entry. A side tracheostomy often is problematic.