ADVANTAGES OF THE SEGMENTAL NONDIVIDED INTERCOSTAL MUSCLE FLAP To the Editor:

The intercostal muscle has been increasingly used to protect and revascularize bronchial stumps and anastomoses after pneumonectomy, sleeve pneumonectomy, lung transplantation, and bronchial sleeve resection.¹ The muscle can be mobilized with a generous flap of parietal pleura to increase coverage. This flap allows protection of the stump or anastomosis, early revascularization of the bronchus,¹ and prevention of bronchopleural fistula in case of dehiscence. The flap can be easily prepared during thoracotomy, before spreading the ribs, and left posteriorly in the costovertebral groove protected with a wet gauze during the lung procedure. If not used, the flap can be placed again between the ribs while closing the thoracotomy. However, sometimes the need for this flap cannot be anticipated preoperatively (thus, if required, it has not been prepared). Alternatively, a flap prepared while opening the chest, as decided at preoperative workup, would not be required because of intraoperative strategy changes (eg, a simple lobectomy instead of a sleeve resection or pneumonectomy, or an exploratory thoracotomy because of unexpected metastatic disease or locally advanced disease). In these situations, the surgeon would add operative time in preparing the unnecessary flap or have

a useless intercostal muscle deeply crushed by the retractor at the thoracotomy site. The latter situation requires mobilization of other flaps.

The segmental mobilization of an intercostal muscle flap has been described and repeatedly advocated to decrease postoperative pain in patients undergoing thoracotomy.^{2,3} This technique avoids crushing the intercostal neurovascular bundle during rib spreading with the retractor. Mobilization from the rib is required only at the level where the retractor is placed and takes only a few minutes, much less than the full isolation of the muscle. At the end of the procedure, the ribs are approximated in the usual fashion according to the surgeon's preference.

This easy technique is extremely useful to reduce postoperative pain and to make the intercostal flap available in case of unexpected and complicated surgical procedures. Also, if the flap is not required as anticipated at preoperative workup, the minimal segmental mobilization allows easy closure of the chest without further maneuvers and avoids having a "foreign body" in the posterior aspect of the chest during the lung procedure. This technique is now routinely used at our center, speeding chest opening and allowing bronchial protection when required.

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TO PUMP, OR NOT TO PUMP, THAT IS THE QUESTION To the Editor:

We read with great interest the article by Kuss and associates,¹ who aimed to systematically review all propensity score analyses comparing off- and on-pump coronary artery bypass grafting (CABG). Their meta-analysis of 28 studies (100,066 patients) found off-pump CABG superior to on-pump CABG in short-term mortality, the most valid criterion (odds ratio 0.69; 95% confidence interval [CI], 0.60–0.75; $P < .0001$). Meanwhile, Møller and collaborators' meta-analysis² of 57 randomized trials (5202 patients) showed no significant difference in mortality (relative risk [RR] 0.98; 95% CI, 0.66–1.44). In the future, the largest ongoing randomized trial (CORONARY trial, 4700 patients planned, ClinicalTrials.gov Identifier: NCT00463294) will contribute to the definite answer, as stated by Kuss and colleagues. Shroyer and coworkers³ recently reported the results of another large randomized trial (ROOBY trial, 2203 patients enrolled, not included in Møller and associates' meta-analysis). There was no significant difference between off-pump and on-pump CABG in the rate of death from any cause before discharge or within 30 days after the procedure (1.6% vs 1.2%; RR 1.38; 95% CI, 0.68–2.80; $P = .47$). Furthermore, even though this result of the ROOBY trial is added to Møller and collaborators' meta-analysis, there is no significant difference in short-term mortality (RR 1.06; 95% CI, 0.67–1.67; $P = .80$; calculated by us). The evidence from randomized trials obviously demonstrated equivalent short-term mortality

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