“Words are the source of misunderstandings”—Antoine de Saint-Exupéry, *Le Petit Prince* (1943)

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Speaking in different languages leads to confusion and miscommunication.

Central Message

A uniform definition of deep sternal wound infection should be used in all studies to ensure generalization of findings and conclusions.

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Contrary to what cardiac surgeons might think, celestial planning for the internal thoracic arteries (ITAs) did not propose that they were there solely waiting in situ for us to harvest them for coronary revascularization. Their proximity to the heart renders them perfect for coronary artery bypass grafting. Spurred by success of the left ITA–left anterior descending bypass with regard to long-term patency and superior survival,¹ surgeons introduced the use of the right ITA because it can be harvested through the same sternotomy incision, allowing for bilateral ITA (BITA) revascularization. But this further challenges the blood flow to the chest wall, which most believe is the greatest etiologic factor for sternal wound infection, particularly in patients with diabetes.

Ohira and colleagues² reported a risk model of deep sternal wound infection (DSWI) after BITA grafting using data from a national database in Japan. This is an impressive registry because it incorporates clinical datasets from 560 hospitals. There are several important messages to draw from this experience. First, the overall penetrance of BITA grafting (30%) is inspiring when compared with the Society of Thoracic Surgeons experience (5%). Second, their overall incidence of DSWI is 1.6%, which would appear to be very respectable.

Generalizing these latter results is hampered by the lack of consistency that seems to pervade the literature regarding the definition of DSWI. Ohira and colleagues² define DSWI as “a wound infection involving muscle, bone, and/or the mediastinum that meets any of the following conditions: wound opened with excision of tissue or re-exploration of mediastinum, positive culture, or treatment with antibiotics.” It is not entirely clear if this involves infections that extend down to the bone without bony instability, which would be classified by Jones and colleagues³ as deep infection. This is thus still by definition DSWI according to the Centers for Disease Control and Prevention,⁴ and in our experience, this group constitutes up to 50% of our

DSWI cases. Many of these patients do not undergo sternal revision as a simple dressing change or vacuum-assisted dressing may be successfully applied and they may not have been identified by the criteria of this Japanese registry. And if they were not, Ohira and colleagues² could be underestimating the true incidence of DSWI in their study. We are all responsible for this miscommunication because even this journal has published criteria that would fail to account for these patients.⁵

We should not prematurely exclude high-risk patients from the potential benefits of BITA grafting due to fear of infection. We must continue to focus research on modifiable risk factors in these patients, such as optimization of diabetes management, smoking cessation, and shorter operative time. We need novel processes to augment collateral flow to the sternum particularly in women with diabetes so that we do not inordinately discriminate against this population by not providing them the best conduits for coronary artery bypass grafting. It is exceedingly important that we collaborate to report according to reproducible definitions that can be easily communicated and validated.

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