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EDITORIAL COMMENTARY

Defining frailty: “I know it when I see it”

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See related article on pages 869-75.

In 1964, US Supreme Court Justice Potter Stewart famously stated in his opinion on the obscenity case *Jacobellis v Ohio* that although he could not use words to describe pornography, “I know it when I see it.” In this context, each of

us has come to know and understand frailty, beginning early in our lives. Frail were the remote relatives who visited us during holidays (and didn’t smell very good either) to the aged patients from whom we spent hours attempting to draw blood from spider veins in bruised, bony arms with parchment-like skin during our medical school clerkships. Frail are our current patients whom we routinely evaluate for transcatheter aortic valve replacement. We have deeply imprinted in our minds how the frail and infirm look and act.

The primary objective in the study by Jung and colleagues¹ reported in this issue was “to determine if adding frailty measures to the euroSCORE II improves model performance in predicting post-operative delirium.” The assessment measures of frailty used in this study are detailed and comprehensive to say the least. It makes total sense that the addition of such extensive documentation of

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frailty by these measures will improve the ability of the euroSCORE model to predict postoperative delirium, because the measures are predictive on their own merit unrelated to the euroSCORE.

One of the advantages of the euroSCORE modeling for risk prediction, however, is the simplicity of the algorithm. For example, recall the algorithm used in the prediction of risk for mortality. So does the complexity of the measures used to define frailty preclude their inclusion in the euroSCORE modeling because of the additional time, effort, and expense necessary to evaluate all the elements?

In keeping with the consistent trend in our specialty to measure, document, and analyze surgical associations and outcomes, the authors of this article attempt to define objectively the impact of frailty on postoperative delirium in cardiac surgical patients. Their results contribute to the growing collection of data that support the fact that frailty has been an underappreciated and insidious contributor to adverse outcomes in cardiac surgery. Three clinical methods were used in this article to evaluate the impact of frailty on postoperative delirium: the Modified Fried Criteria (MFC), the Short Physical Performance Battery (SPPB), and a 35-item Frailty Index (FI).

The MFC, SPPB, and FI assessment tools are uncommon in our specialty and seem unduly complex and time demanding of the staff tasked with collecting such information. The authors of this article speak to the complex nature of these 3 assessment tools and suggest that assessing for hand grip strength and weight loss might be a proper surrogate for the extensive MFC, SPPB, and FI instruments.

Several references were made to the fact that “assessing for hand grip strength and weight loss is extremely simple—the tests are quick, inexpensive, and reproducible with minimal training.” There were, however, no comparison groups or analysis supporting the contention that the grip strength and weight loss examinations were as predictive on their own merit as the 3 complete assessments (MFC, SPPB, and FI). Can the 2 seemingly simple measures of grip strength and weight loss therefore be a surrogate for the 3 more comprehensive tools, without such comparisons? Moreover, are the resources necessary to examine and quantify frailty by the 3 comprehensive

assessment tools realistic for use with large numbers of patients presenting for cardiac surgery?

The authors additionally suggest that there may be “opportunities for improved prevention and management” of delirium in this frail population. The potential for improvement in the short term preoperatively is unrealistic and was unsupported by these data, because frailty is a chronic state of deterioration and patients being evaluated for cardiac surgery may present with a clinical condition that may not allow such risk factor modification.

Finally, the authors surprisingly found no statistically significant association between frailty and the “other secondary outcomes of [intensive care unit stay], major adverse events, 28-day in-hospital mortality, or institutional discharge.” They explain the failure to reach significance on the basis of “lack of cases for each outcome.” This is a major limitation of the article, because the documentation of frailty may have much more significance in risk stratification than delirium.

Although the impact on delirium is important, I look forward to a more robust examination that will help us further define the necessary association of frailty and increased rates of postoperative complications. More specifically, would identification of frailty in fact exclude some of these patients referred for heart surgery because of their poor results regardless of the surgical procedure performed? Until those results become available, we will continue to rely on our preoperative clinical observation skills, with the knowledge that our intuition may have more validity than a tool.

There is one further reality on this issue. Fragility resides at the same address as frailty. For those of us who saw the results that occurred when we knocked one of our mother’s porcelain figurines off of the table onto the floor, usually more than once, we knowingly can anticipate the same results from surgical intervention in some of our frail and fragile patients. All the tests at our disposal may not replace the fact that we know frailty “when we see it.”

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