Correspondence

Subclinical Interstitial Lung Disease: No Place for Crackles?

To the Editor:

We have read with interest the review by Doyle and colleagues (1) on subclinical interstitial lung disease (ILD), defined as mild changes at high-resolution computed tomography (HRCT) in asymptomatic individuals. The authors propose a sound algorithm whereby patients with incidentally noted ILD or clinically suspected ILD may first undergo a dedicated HRCT of the chest and pulmonary function tests. Symptomatic patients in the setting of conditions predisposing to ILD (e.g., connective tissue disease or a family history of ILD) may then be proposed an annual screening for symptoms and pulmonary function tests.

However, we were surprised by the lack of discussion about clinical signs of ILD in the article by Doyle and coworkers, and argue that the presence or absence of fine crackles at lung auscultation should be incorporated into the algorithm of management of subjects with subclinical ILD, for example, patients with no dyspnea at exertion or cough. We consider that more attention should be paid to fine crackles at lung auscultation, as they are present in almost all patients with idiopathic pulmonary fibrosis (IPF) (2) and may be an early (the earliest?) finding in patients with IPF. In contrast to complex investigations proposed by the authors but not ready yet to be implemented in the clinic (biomarkers, genetic assays), auscultation for fine crackles is easily applicable to everyday clinical practice. Medical students and general physicians should be taught how to recognize velcro crackles in the objective of an earlier diagnosis of IPF—a diagnosis currently delayed by more than 2 years with an increased risk of death (3).

With the increasingly common incidental findings of ILD at HRCT and the increased awareness of familial pulmonary fibrosis, the clinical scenario of dealing with subjects with subclinical ILD will soon become frequent, and chest specialists will face the challenge of how to decipher which individuals will actually develop clinically significant ILD, and which will long remain asymptomatic. In this setting, the risk of psychological and financial detrimental effects, and of radiation associated to the HRCT, should not be underestimated. We hypothesize that crackles may contribute to dealing with this dilemma, as subjects with crackles at repeated auscultation are likely to be eventually diagnosed with definite IPF. The time has come to launch longitudinal studies in individuals with subclinical ILD and to evaluate precisely the value of velcro crackles in predicting the evolution to a clinically relevant ILD.

Author disclosures are available with the text of this letter at www.atsjournals.org.

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Reply

From the Authors:

We thank Professors Cottin and Cordier for their thoughtful response to our perspective of subclinical interstitial lung disease (ILD) (1). We agree with the authors that the physical exam is an important skill to be taught and refined and not to be supplanted by more complex physiologic testing but rather supplemented by it. However, the only data addressing the significance of crackles in subclinical ILD that we are aware of is what we have previously shown in individuals with subclinical rheumatoid arthritis-associated ILD (RA-ILD) (2). In this study, we found a statistically significant difference in the percentage of subjects having audible crackles on physical exam when comparing those with subclinical RA-ILD (24%) to those with only RA (4.7%, $P = 0.02$) or to those with clinically significant RA-ILD (100%, $P < 0.001$). We did not include physical exam in our diagnostic algorithm as it is unclear if these findings can be extrapolated to other groups affected with subclinical ILD. Despite the above, we agree with Cottin and Cordier that the presence of crackles could improve the assessment of populations at risk of developing subclinical ILD.

We agree with Cottin and Cordier that the identification of subjects with subclinical ILD may come with increased psychological and financial burdens and with a risk of additional radiation exposure. As outlined in our perspective, we believe that future research into subclinical ILD can be structured to minimize these risks while maximizing the benefit of early identification. Longitudinal studies will be crucial in determining which subset of patients with subclinical ILD will go on to develop clinically significant ILD and which individuals may have reversible causes, such as hypersensitivity pneumonitis; it is in this population that a work-up for subclinical ILD would be most justified. More sensitive noninvasive metrics to assess subclinical ILD, such as clinical predictive modeling and biomarker and genetic assays, can also work to reduce the indiscriminate use of imaging. Additionally, an improved understanding of subclinical ILD will hopefully lead to a better understanding of the pathophysiology of ILD and the development of more effective treatments targeted at earlier stages of disease. Our hope is that efforts targeted at early identification will ultimately have a positive impact on the morbidity and mortality of ILD.

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Fatalism Is Not Justified when Evaluating the Critically Ill Elderly

To the Editor:

With interest we read the article by Iwashyna and colleagues describing and discussing spurious inferences about long-term outcomes with respect to severe sepsis and geriatric conditions (1). Their line of thought is intriguing and may also influence our perception on whether or not to admit critically ill elderly patients. We and others have shown that patients with severe sepsis have a decreased health status when compared with a general matched healthy population (2). Moreover, the premorbid condition was a strong predictor for final outcome. Recently, we demonstrated that critically ill octogenarians already have an impaired health-related quality of life preceding critical illness, but their long-term impaired health-related quality of life is recovering to baseline values over time (3). This suggests that we have to consider carefully the health status before considering whether ICU admission would be of potential benefit for an elderly patient, but that we should not be too fatalistic in making this decision. Iwashyna and coworkers pointed this out quite eloquently. Because the number of critically ill elderly people will increase in the next decennium, the suggested line of reasoning may be important for all health care workers dealing with the critically ill. This will almost certainly have impact on the needed number of ICU beds, critical care physicians, nurses, and other ICU staffing.

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Reply

From the Authors:

The evolving research on survivorship complicates the already complex art of patient-centered decision making for the critically ill. Several groups have now presented data showing frequent problems among survivors of critical illness—some new, some preexisting, some likely the acute recognition of chronic processes. Our study (1) and others' studies have implications for practice, as patients may be less willing to accept treatment with modest risks of cognitive impairment and disability than they would the same risk of death (2). But given the difficulties of conveying prognostic information to families (3), and our lack of nuanced and accurate risk-prediction tools in most cases, it is not yet clear how a humane and evidence-based physician should incorporate these data.

We agree with Drs. Spronk and Hofhuis that a blanket fatalism is not justified in evaluating the older and oldest critically ill. But more so, we would argue that fatalism is not justified when considering the challenges of ICU survivors. Instead, a new challenge has been identified for critical care physicians and our collaborators. In our opinion, a crucial and underappreciated opportunity is collaborating with and organizing survivors of critical illness and their families into full partners (4). Their knowledge of the survivorship experience is necessary in clarifying present care needs and priorities for future research, many of which fall outside the disease-based medical model. We also must rigorously test innovative and diverse interventions. In some cases, these interventions will involve preventing new problems; in others, helping patients and their caregivers better adapt to and accommodate new problems; and in others, treating long-standing but previously unrecognized problems. We need a portfolio of new therapies to match the diverse challenges our older adult survivors face.

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