

onset of dyspnoea, a duration of illness of ≥ 3 months and the presence of bibasilar velcro crackles) indicates, and was formally designated as, the minor diagnostic criteria for IPF [2]. Based on the presence of inspiratory fine crackles or a history of occult-onset dyspnoea that progresses gradually, every physician is able to list IPF among the candidate diseases and resort to CT scan or lung biopsy to verify this [3]. Velcro-like rales do not establish the diagnosis of IPF exclusively, but rather warrant further investigations. A past medical or environmental history is thus more helpful for narrowing down the suspects. For example, a history of recent radiotherapy or chronic asbestos exposure illuminates the diagnosis of radiation pneumonitis or asbestosis, respectively. A primary diagnosis of IPF is more confidently made by combining physical examination findings and medical histories together than by each one separately.

Though it is supposed that the majority of IPF patients are identified by physicians [1], radiologists also contribute a lot. Computer-aided analysis recognises early interstitial lung diseases with a diagnostic sensitivity of 80.0% and specificity of 85.7% in low-dose CT images [4]. More recently, in an Italian lung cancer screening project, two (0.3%) typical UIP patterns out of 692 heavy smokers were distinguished *via* low-dose, thin-section CT [5]. For the foreseeable future, radiologists will probably identify an increasing number of IPF patients by low-dose CT scan in lung cancer screening programmes.

In conclusion, the importance of velcro crackles in diagnosing early IPF increases when analysed together with medical histories, or even with CT images if available. Both physicians and radiologists are ready to make an initial diagnosis of IPF, which is confirmed by lung biopsy in qualified facilities. However, Dr Laennec would be glad to see stethoscope, his most renowned invention, being used by modern doctors as a flashlight beaming on the road towards early IPF.

Xiaoqian Chen*, **Xiaoju Zhang[#]**, **Xiu Li*** and **Zheng Wang***

*Dept of Respiratory and Critical Care Medicine, Hefei No. 1 People's Hospital, Hefei, and [#]Dept of Respiratory and Critical Care Medicine, Municipal Hospital of Henan Providence, Zhengzhou, China.

Correspondence: Z. Wang, Dept of Respiratory and Critical Care Medicine, Hefei No. 1 People's Hospital, Huaihe Road 390#, Hefei, Anhui, China. E-mail: santawang99@163.com

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From the authors:

C. Xiaoqian and colleagues comment on our recent editorial [1], in which we emphasised the potential role of “Velcro” crackles at auscultation for earlier diagnosis of idiopathic pulmonary fibrosis (IPF). They are right to underline that “velcro” crackles were formerly one of the minor criteria for the diagnosis of IPF in the absence of a lung biopsy, and to discuss the role of high-resolution computed tomography (HRCT) of the chest.

Although “velcro” crackles alone are undoubtedly not specific of IPF, their finding should prompt the clinician to perform further investigations including chest HRCT, contributing to the early diagnosis of IPF, whatever the symptoms or the context that initially motivated lung auscultation. We further consider that pulmonary auscultation should still be included in the initial steps of the diagnostic algorithm in patients with chronic dyspnoea, especially in those with progressive dyspnoea, as well as in patients with chronic dry cough.

The contribution of HRCT in diagnosing IPF is well established, especially in light of the recent international guidelines, which state that in patients without identifiable cause of interstitial lung disease, a HRCT pattern of usual interstitial pneumonia (UIP) with honeycombing is diagnostic of IPF, obviating the need of a lung biopsy [2]. However, such patients, in whom the definite diagnosis of IPF can be made without a lung biopsy, already have a well-established and irreversible disease. Honeycombing on imaging unfortunately reflects our current failure to detect IPF at an earlier stage, with a risk for patients with markedly altered lung function tests of being excluded from clinical trials and even of being denied pirfenidone therapy. Therefore, we strongly advocate that patients with clinically suspected IPF and a pattern of *possible* UIP at imaging be given the chance of an early diagnosis confirmed by lung biopsy, even in the case of only mild symptoms and preserved lung function, if the benefit/risk ratio of a biopsy is favourable. Observing the development of honeycombing at imaging and the decline in lung function tests in a given patient long known to have crackles at auscultation and interstitial changes at imaging merely demonstrates that diagnostic (and possibly therapeutic) decisions are long overdue in this patient.

Improving the ability of community physicians to acknowledge “velcro” crackles at lung auscultation and especially to initiate appropriate investigations may be the only key for the earlier diagnosis of IPF: let us have the chance to hear crackles (and to diagnose and possibly treat IPF) before we see honeycombing.

Vincent Cottin and Jean-François Cordier

Reference Centre for Rare Pulmonary Diseases, Hospices Civils de Lyon, Louis Pradel Hospital, Claude Bernard University Lyon 1, Lyon, France.

Correspondence: Vincent Cottin, Reference Centre for Rare Pulmonary Diseases, Louis Pradel Hospital, 28 Avenue Doyen Lepine, Lyon 69677, France. E-mail: vincent.cottin@chu-lyon.fr

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