

WHAT COULD BE THREATENING HER LUNG FUNCTION?



ABOUT CAROLINE

- 63 years old
- Guidance counselor
- Made an appointment with a pulmonologist after worsening respiratory symptoms



MEDICAL HISTORY

- Presenting symptoms:
 - Worsening dyspnea
 - Chronic cough
- Previously diagnosed with asthma based on symptomatology, but unresponsive to bronchodilator therapy
- No family history of IPF



PHYSICAL EXAM

- Fine Velcro®-like crackles on lung auscultation

IPF, idiopathic pulmonary fibrosis.

Not an actual patient.

PRESENTING CLINICAL PICTURE RAISES SUSPICION OF IPF

Caroline's pulmonologist performed baseline PFTs to monitor her worsening symptoms

Pulmonary function testing shows decreased FVC and DL_{co}:

| PFTs | |
|-----------------------|------|
| FVC* | 86% |
| FEV ₁ * | 97% |
| FEV ₁ /FVC | 0.87 |
| TLC* | 79% |
| DL _{co} * | 74% |

*% predicted.

DL_{co}, diffusing capacity of the lungs for carbon monoxide; FEV₁, forced expiratory volume in 1 second; FVC, forced vital capacity; HRCT, high-resolution computed tomography; IPF, idiopathic pulmonary fibrosis; MDT, multidisciplinary team; PFT, pulmonary function test; TLC, total lung capacity; UIP, usual interstitial pneumonia.

IN THE ABSENCE OF OTHER KNOWN CAUSES, HRCT, IN DISCUSSION WITH AN MDT, IS SUFFICIENT TO CONFIRM AN IPF DIAGNOSIS^{1,2}

RADIOLOGIC EVIDENCE CONFIRMED SUSPICION OF PULMONARY FIBROSIS

Caroline's pulmonologist conducted an HRCT and detected



- Honeycombing
- Reticulation
- Traction bronchiectasis
- **Features consistent with a UIP pattern**

Diagnosis: IPF

IDENTIFY PULMONARY FIBROSIS IN PATIENTS AS EARLY AS POSSIBLE^{2,3}

SUSPECT PULMONARY FIBROSIS

**PULMONARY FIBROSIS IS A COMMON THREAT ACROSS
A WIDE RANGE OF ILDs, INCLUDING:⁴⁻⁷**

▶ Idiopathic pulmonary fibrosis

- Systemic sclerosis-associated ILD
- Rheumatoid arthritis-associated ILD
- Other connective tissue disease-associated ILD
- Hypersensitivity pneumonitis
- Exposure-related ILDs
- Idiopathic non-specific interstitial pneumonia
- Unclassifiable idiopathic interstitial pneumonia
- Sarcoidosis

**WHILE ALL PATIENTS WITH IPF HAVE PROGRESSIVE PULMONARY FIBROSIS,
THERE EXISTS A VARIETY OF OTHER ILDs THAT MAY ALSO DEVELOP
A PROGRESSIVE FIBROSING PHENOTYPE^{4,8}**



**Lung function
decline⁴**



**Worsening
quality of life⁴**



**Worsening
respiratory symptoms⁴**

2 to 5 years median survival^{2,3}



**Acute IPF exacerbations can occur
at any time and cause sudden and
severe lung function worsening^{2,6}**

References: 1. Raghu G, Remy-Jardin M, Myers JL, et al; on behalf of the American Thoracic Society, European Respiratory Society, Japanese Respiratory Society, and Latin American Thoracic Society. Diagnosis of Idiopathic Pulmonary Fibrosis. An Official ATS/ERS/JRS/ALAT Clinical Practice Guideline. *Am J Respir Crit Care Med.* 2018;198(5):e44-e68. 2. Raghu G, Collard HR, Egan JJ, et al; on behalf of the ATS/ERS/JRS/ALAT Committee on Idiopathic Pulmonary Fibrosis. An official ATS/ERS/JRS/ALAT statement: idiopathic pulmonary fibrosis: evidence-based guidelines for diagnosis and management. *Am J Respir Crit Care Med.* 2011;183(6):788-824. 3. Molina-Molina M, Aburto M, Acosta O, et al. Importance of early diagnosis and treatment in idiopathic pulmonary fibrosis. *Expert Rev Respir Med.* 2018;12(7):537-539. 4. Cottin V, Hirani NA, Hotchkiss DL, et al. Presentation, diagnosis and clinical course of the spectrum of progressive-fibrosing interstitial lung diseases. *Eur Respir Rev.* 2018;27(150):pii:180076. 5. Demedts M, Wells AU, Antó JM, et al. Interstitial lung diseases: an epidemiological overview. *Eur Respir J Suppl.* 2001;32:2s-16s. 6. Ley B, Collard HR, King TE Jr. Clinical course and prediction of survival in idiopathic pulmonary fibrosis. *Am J Respir Crit Care Med.* 2011;183(4):431-440. 7. Wells AU, Brown KK, Flaherty KR, et al. What's in a name? That which we call IPF, by any other name would act the same. *Eur Respir J.* 2018;51(5):1800692. 8. Flaherty KR, Brown KK, Wells AU, et al. Design of the PF-ILD trial: a double-blind, randomised, placebo-controlled phase III trial of nintedanib in patients with progressive fibrosing interstitial lung disease. *BMJ Open Resp Res.* 2017;4(1):e000212.