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**Project ECHO for Interstitial Lung Disease  
Case Form**

ECHO ID: ILDECHO-061

☒ New Case☐ Follow-up Case

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Current or suspected ILD diagnosis (if known): Hypersensitivity Pneumonitis

How was this diagnosis made (select all that apply)?

☒ Radiology☒ Pathology☐ Multidisciplinary discussion

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**Main Question:**

By presenting this case, I hope to obtain:

☐ Help making a diagnosis☒ Help with lab/test interpretation☒ Help with clinical management

☒ Other (please specify): Get input on the significance of the mold growth from VATS biopsy, how to determine if it is a/the culprit antigen, and if treatment would be indicated.

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**Patient Demographic Information:**☐ Male ☒ Female ☐ Transgender

Age (years): 69

State of primary residence: MA

Ethnicity: ☐ Hispanic or Latino ☒ Not Hispanic or LatinoRace (check all that apply): ☐ American Indian or Alaskan Native ☐ Asian☐ Black or African American ☐ Native Hawaiian/Pacific Islander ☒ White☐ Other ☐ Unknown

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**Case Summary:**

69 y/o presented in October 2023 with 2 months of productive cough and SOB. Treated for pneumonia without improvement despite 3 course of antibiotics.

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Eventually improved on ICS/LABA. Chest CT showed multifocal upper lobe predominant GGO with questionable bronchiectasis suggestive of HP.

02/2024: Bronchoscopy without secretions and BAL c/w HP.

03/2024:  $\geq 2$  month prednisone taper with less cough and SOB. Worse off prednisone with night sweats and fatigue.

06/2024: VATS Bx c/w HP. Resumed slow prednisone taper x 6 months along with farm avoidance (same house with carpeting).

Off prednisone continues to feel poorly. F/U testing ordered and pending. Presumed Bacterial pneumonia March 2025.

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### Exposure History:

- ☐ Previous or current bird ownership   ☐ Down products in the home
- ☐ Woodworking   ☐ Well water   ☒ Hay exposure   ☐ Hot tub/jacuzzi/sauna
- ☐ Humidifiers   ☐ Dusty environments   ☒ Water damage or mold at work or home
- ☒ Farmland/barns   ☐ Amiodarone   ☐ Chemotherapy past/present
- ☐ Chest radiation past/present   ☐ Asbestos

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### Past Medical History:

Allergic Rhinitis on SCIT; Eczema; GERD on PPI; Osteopenia; Recurrent herpes

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### Medications:

Allergy Immunotherapy (maintenance); Fluticasone NS; Cetirizine; Omeprazole; Valcyclovir; Wixela 250-50mcg; Calcium/ Vit D / Magnesium / Vit E; Probiotic; Numerous supplements (collagen, Stim Vegetable caps, lipid)

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### Focused ROS:

- ☐ Rashes   ☐ Skin thickening   ☐ Arthralgias   ☐ Myalgias   ☐ Muscle weakness
  - ☐ Dry mouth   ☐ Dry eyes   ☐ Red or painful eyes   ☐ Raynaud's   ☐ Oral ulcers
  - ☐ Alopecia   ☐ Dysphagia   ☒ Heartburn/reflux   ☐ Fevers   ☒ Night sweats
  - ☐ Palpitations   ☐ Weight loss
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**Smoking History:**

- ☒ Never smoker
- ☐ Current smoker (          packs per day)
- Pack years:                  Quit date (if applicable):
- ☐ Cocaine use (route)
- ☐ Vaping/e-cigarettes (frequency)
- ☐ Inhaled marijuana (quantity)

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**Occupations, current and previous (if industrial or factory work, please provide specific details):**

Runs a beef cattle farm and manages rental property.

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**Travel and Residential History:**

Symptoms started after camping outdoors at a lake in VT. No relevant travel.  
Exposures: "Earth shelter house" and hay.

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**Family History:**

- ☐ Pulmonary fibrosis or interstitial lung disease
- ☐ RA, Lupus, or other autoimmune diseases"
- ☐ Premature gray hair   ☐ Cirrhosis of the liver   ☐ Bone marrow disorders
- ☐ Leukemias

*Comments:* None significant

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**Physical Exam:**

*Vital signs:*

BP: 120/75    Height: 160 cm    Wt: 62 kg    BMI: 24

Oxygen saturation: 98%    Ambulatory saturation:

*HEENT:*

- ☐ Scleral injection   ☐ Dry mucous membranes   ☐ Poor dentition   ☐ Ptosis
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## *Pulmonary:*

- ☐ Wheezes   ☐ Rhonchi   ☐ Crackles
- ☐ Squeaks   ☐ Stridor   ☐ Dullness to percussion   ☐ Pleural Rub
- ☐ Bronchial breath sounds
- ☒ Other: Clear breath sounds

## *Cardiac:*

- ☐ Murmur                      ☐ Gallop
- ☐ RV heave   ☐ Pulmonary tap   ☐ JVD   ☐ Irregular
- ☐ Edema        ☐ Other:

## *Abdomen:*

- ☐ Distended   ☐ Tender   ☐ Tympanitic   ☐ Pulsatile liver   ☐ Fluid wave
- ☐ Other:

## *Skin/Nails:*

- ☐ Rash (location, description)
- ☐ Clubbing   ☐ Ragged cuticles   ☐ Telangiectasias
- ☐ Abnormal nailfold capillaroscopy
- ☐ Digital swelling / Sclerodactyly   ☐ Ulcerations
- ☐ Mechanics hands

## *Joints:*

- ☐ Synovitis                      ☐ Deformity   ☐ Tenderness   ☐ Erythema

## *Neuro:*

- ☐ Proximal muscle weakness
- ☐ Other:

## *Other pertinent findings:*

Unremarkable physical exam

**Relevant Studies (please list key findings):**☒ PFTs:

	<b>02/2024</b>	<b>05/2024</b>	<b>10/2024</b>
FVC	2.33 (88%)	2.45	2.70
FEV1	1.82 (88%)	1.79	2.03
FEV1/FVC	78%	73%	75%
DsbHb	12.4 (67%)	14.0	14.4
TLC	4.05 (84%)	3.81	4.35

☒ CXR                                      Uploaded to Ambra: ☒ Yes ☐ No☒ CT chest                                      Uploaded to Ambra: ☒ Yes ☐ No☐ Echocardiogram                                      Uploaded to Ambra: ☐ Yes ☐ No☐ Right heart catheterization:☐ Other relevant testing:

Barium Swallow 03/2024: unremarkable.

Bronchoscopy 02/2024: NL airway exam except fish-mouth opening at RML.

BAL: 31% / 29% lymphs: CD4/CD8 ratio 0.34 / 0.26.

Micro: negative except mold from BAL (unable to identify)

**Relevant Labs:**Has the patient been evaluated by a Rheumatologist? ☐ Yes ☒ No

Date of last labs (month/year): 02/2025

CBC/differential: Normal

ANA: ☐ Neg ☐ Titer 1:40 Pattern homogeneousANA #2: ☐ Titer                      PatternANA #3: ☐ Titer                      PatternSmith: ☒ Neg ☐ TiterSSA/Ro60: ☒ Neg ☐ TiterSSB/La: ☒ Neg ☐ Titer

dsDNA: ☒ Neg ☐ Titer

Scl-70: ☒ Neg ☐ Titer

Centromere: ☐ Neg ☐ Titer

RNA polymerase III: ☐ Neg ☐ Titer

RNP: ☒ Neg ☐ Titer

RF: ☒ Neg ☐ Titer

CCP: ☐ Neg ☐ Titer

ANCA: ☒ Neg ☐ Titer Pattern

MPO: ☐ Neg ☐ Titer

PR3: ☐ Neg ☐ Titer

PM1-Scl: ☒ Neg ☐ Titer

Ro52: ☐ Neg ☐ Titer

Jo-1: ☒ Neg ☐ Titer

EJ: ☒ Neg ☐ Titer

OJ: ☒ Neg ☐ Titer

PL-7: ☒ Neg ☐ Titer

PL-12: ☒ Neg ☐ Titer

MDA5: ☒ Neg ☐ Titer

KU: ☒ Neg ☐ Titer

MI-2: ☒ Neg ☐ Titer

P155/140 (TIF1y): ☒ Neg ☐ Titer

NXP-2: ☒ Neg ☐ Titer

SRP: ☒ Neg ☐ Titer

SAE-1: ☐ Neg ☐ Titer

HP panel: ☒ Neg ☐ Pos

C3/C4: ☐ WNL ☒ Low

ESR: 12

CRP: < 3.0

CK:

Aldolase:

ACE:

Urinalysis:

*Additional Comments:*

sIL2-R: 2500 (nl <900)

IgG low (521), IgM low (35), IgA low (59)

SPEP - negative

VATS Bx 06/2024: c/w HP.

BAL and tissue culture both grew two colonies of FUNGI: *Irpex lacteus*

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## Questions:

- 1) Are there hints from the pathology suggesting ongoing antigen exposure?
- 2) What is the relevance of the *Irpex lacteus* isolated from the BAL and VATS tissue culture?
  - a) Is there a way of testing if the *Irpex lacteus* is immunologically activating?
  - b) Is there a role for treating the *Irpex lacteus* with antifungal therapy?
- 3) Are there home assessments reliable to permit her to stay in her current house?