**Objectives**:

Chronic pulmonary aspergillosis (CPA) is categorized into five subtypes: aspergilloma, aspergillus nodules, chronic colloidal pulmonary aspergillosis, chronic fibrotic pulmonary aspergillosis, and subacute invasive aspergillosis. *Aspergillus pseudodeflectus* belongs to *Aspergillus* section *Usti*. This section includes more than 20 species.

**Materials & Methods:**

A 69-year-old male, former sailor, smoker with chronic obstructive pulmonary disease stage IV presented with a fever up to 38.5°C for three months, worsening cough/dyspnea and weight loss. At first hospitalization, necrotizing pneumonia of the right upper lobe was diagnosed and he received antimicrobial treatment. Bronchoscopy revealed purulent secretions, whereas cultures were negative. A second hospitalization followed a few days later, where the presence of microalveolar infiltrates in the right lower and left lower lobes constituted a new finding on chest computed tomography (CT) scan **(image 1)**; *Aspergillus* spp was isolated in the bronchoalveolar lavage (BAL). Voriconazole was initiated, and a right upper lobe lobectomy was decided due to shrinkage, necrotic morphology, and confluent cavities with bronchiectasis.

**Results**:

Histologic examination revealed lesions consistent with chronic necrotizing aspergillosis (necrotizing granulomatous pneumonia, bronchiectasis cavities, and bronchocentric granulomatosis), presence of fungal spores/hyphae within bronchiectasis spaces with morphological characters of the genus *Aspergillus* spp. and foci of necrotic granulomas consisting of foamy histiocytes and multinucleated giant cells surrounding necrosis enclosing fungal hyphae. Nucleic acid test (NAT) for mycobacteria was negative but positive for *Aspergillus pseudodeflectus* (*A. ustus* complex). The patient received voriconazole for two months without adverse events; then it was discontinued due to clinical improvement. Eighteen months later, he was readmitted to the hospital for a respiratory infection again; a CT scan showed new thickening fibroatelic elements in the right upper lobe, and lung “honeycombing”; BAL was negative for *Aspergillus* spp., *Nocardia,* and aerobic or anaerobic bacteria. Also, galactomannan from BAL was negative. Nevertheless, voriconazole was restarted due to positivity of IgG *Aspergillus*. He was discharged with oral voriconazole, azithromycin and bronchodilator treatment. Following an infectious disease consultation, itraconazole at 200mg twice daily was started [therapeutic drug monitoring (TDM) of itraconazole: 3.60mg/L]. Simultaneously, a new thorax CT scan, after three months, revealed that the fibrodense atelectasis elements had been significantly reduced **(image 2)**. The patient received one year itraconazole in total, with stable respiratory function and without deterioration in health status based on St. George's Respiratory Questionnaire (SGRQ).

**Conclusions**:

CPA is underdiagnosed and should be sought regardless of immunological deficiencies. If not treated promptly with the appropriate choice of antifungal treatment and duration, it relapses or evolves into a more severe form of disease. *A. pseudodeflectus* has never been described in human pathology, as it may have been underestimated before the introduction of molecular diagnostic modalities in clinical practice.