A 53-year-old woman admitted to the hospital with a two-month history of intermittent pyrexia.

**Imaging Findings:**

A 53-years-old woman, was admitted to the hospital with a two-month history of intermittent pyrexia, malaise and dry cough. She had received repeated courses of antibiotics as outpatient with no clinical improvement. On examination, she was febrile 38.2°C with end-inspiratory crackles on auscultation. Haematological and usual biochemistry profiles were normal except from an elevated erythrocyte sedimentation rate (110 mm/h). Serology for viral agents, blood and sputum cultures, immunological profile and tumor markers were all within normal range. The pulmonary function tests showed a moderate restrictive defect. A chest radiograph showed areas of consolidation at the periphery of both middle and lower lung zones (Fig. 1). Comparison with previous radiographs showed worsening of radiological abnormalities. HRCT revealed a mixed pattern consisting of bilateral patchy areas of ground glass attenuation and consolidations, in a peripheral and peribronchovascular distribution, in all three lung fields. However the lesions predominated in the middle and lower lung fields. Dilated bronchi were occasionally observed through the consolidations (Fig 2a, 2b). Centrilobular nodules and a few parenchymal bands were also seen almost exclusively in the upper lung fields (Fig 2b). Video-assistant thoracoscopic biopsy of the lung was performed.

**Discussion:**

Idiopathic cryptogenic organizing pneumonia (COP) also known as bronchiolitis obliterans organizing pneumonia (BOOP) is characterised histologically by the presence of plugs of granulation tissue in the lumen of the distal air spaces - respiratory and terminal bronchioles, alveoli and alveolar ducts- associated with a variable degree of interstitial and air space infiltration with mononuclear cells and foamy macrophages. A typical clinical presentation characterised by subacute onset, dry cough, dyspnea, fever and flu-like symptoms occurs in over half of the patients. Although COP is sometimes associated with other pathologic conditions including collagen vascular diseases, ulcerative colitis, tumors, in the majority of patients is idiopathic. Lung function tests typically show a restrictive pattern (1). The most frequent findings on chest radiograph consists of multiple, patchy, bilateral areas of consolidation, which may show spontaneous regression as well as progression on follow up films. The most common HRCT appearance of COP consists of bilateral patchy areas of consolidation or a combination of consolidation and ground glass attenuation in a predominantly subpleural and peribronchovascular distribution. Nodules usually occur as part of a mixed pattern (2). Many atypical radiological presentations have been reported including multiple linear (3) or ring shape opacities (4) and multiple large nodules or masses (5). Although the CT findings of COP are not specific for the disease, a combination of patchy, bilateral areas of ground glass opacities...
and air space consolidation in a peripheral and peribronchovascular distribution, should arouse the suspicion of COP, in the appropriate clinical settings.

**Differential Diagnosis List:** Idiopathic cryptogenic organizing pneumonia (COP)

**Final Diagnosis:** Idiopathic cryptogenic organizing pneumonia (COP)

**References:**


Figure 1

Description: Posteroanterior chest radiograph shows areas of airspace consolidation at the periphery of both middle and lower lung zones. Origin:
**Figure 2**

**a**

**Description:** HRCT at the middle lung fields shows multiple patchy areas of ground-glass attenuation and consolidations in a peripheral and peribronchovascular distribution. **Origin:**

**b**

**Description:** HRCT at the carina level reveals patchy, peribronchovascular, airspace consolidations intermixed with an area of ground-glass attenuation at the periphery of the anterior segment of the left upper lobe. Some dilated bronchi are seen within the consolidations. Centrilobular nodules and a few parenchymal bands are also seen, particularly on the right. **Origin:**