

Case Report

## Macleod Syndrome: A Rare Cause of Pulmonary Hypertransparence: About A Case

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**Abstract:** Macleod syndrome is an obstructive pulmonary disease linked to the anatomical sequelae of acute viral bronchiolitis in childhood. We report an observation of a patient with a clear unilateral lung in order to discuss the diagnostic approach and to underline the difficulty of the aetiological research.

**Keywords:** Macleod syndrome – CT scan - Pulmonary Hypertransparence.

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### INTRODUCTION

Macleod syndrome is an obstructive pulmonary disease linked to the anatomical sequelae of acute viral bronchiolitis in childhood [1]. Characterized by vascular hypoplasia with on chest x-ray a clear unilateral lung [2]. We report an observation of a patient with a clear unilateral lung in order to discuss the diagnostic approach and to underline the difficulty of the aetiological research.

### OBSERVATION AND RESULTS

40-year-old patient. With progressive onset dyspnea, with clear left lung on frontal chest x-ray. Thoracic CT shows decreased distal vascularization of the left lung (Figure). The echocardiogram is without abnormalities. Pulmonary arterial pressure was normal. This in the absence of exposure to a toxicant or drug intake. The immunological and infectious assessment was negative. The spontaneous course was marked by clinical and functional respiratory improvement. No change in peripheral pulmonary vascularity was noted. These evolving elements have argued in favor of Mac Leod syndrome.



**Figure: Thoracic CT: decreased peripheral vascularity in the left lung**

## DISCUSSION

Macleod syndrome is a rare disease, probably secondary to the sequelae of early childhood bronchial disease [1]. It can be limited to one lobe or an entire lung. In this syndrome, the peripheral bronchioles are obliterated, while the alveoli and peripheral pulmonary vessels are poorly developed. It can lead to outbreaks of infection or manifest as dyspnea on exertion. Chest x-ray shows this hyper-clarity with decreased transparency of the pulmonary field, and guides the diagnosis by showing unilateral hyperclarity with air entrapment that may involve all or part of a lung [3]. The chest CT scan confirms the diagnosis and shows a decrease in the central and peripheral arterial vascularity, and sometimes, pulmonary hypoplasia and bronchiectasis confirming the syndrome [3]. The scintigraphy is not specific to the diagnosis but it confirms it, showing a defect in perfusion, with often persistent ventilation through Kohn's pores and Lambert's ducts [4]. For bronchial fibroscopy which is rarely performed, may show a distorted bronchial tree. There is no known treatment for this syndrome.

## CONCLUSION

Macleod syndrome is an essentially radiological diagnostic syndrome, often asymptomatic

and which can pose a diagnostic problem. We believe that the publication of more clinical cases is important to better define this entity.

**Conflicts of Interest:** The authors declare that they have no conflict with this manuscript.

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