



Letter to the Editor

Mounier-Kuhn Syndrome

Mounier-Kuhn Sendromu

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Dear Editor,

In the case report titled “Cases of Multiple Tracheobronchial Diverticulosis Characterized by Recurrent Pneumonia Episodes,” published in the Medical Journal of Bakırköy, volume 20, issue 4, December 2024 (1) case 2 demonstrates tracheobronchomegaly with tracheal diverticula and cylindrical bronchiectasis of the right upper lobe, suggesting that this case should be considered in the differential diagnosis of Mounier-Kuhn syndrome (MKS).

We believe that evaluating the case from this perspective, providing radiological measurements of the trachea and main bronchi, and emphasizing the need to consider MKS in the differential diagnosis if the measurements fall within the range consistent with MKS as discussed below would enhance the educational value of the case.

A review of the literature on MKS reveals that, although its exact cause remains unknown, it is a rare congenital lung anomaly characterized by tracheobronchomegaly—an abnormal dilation of the trachea and main bronchi—resulting from a defect in the development of connective tissue and smooth muscle in the tracheobronchial system.

Although acquired forms of MKS have been described and attributed to factors such as barotrauma associated with intensive oxygen therapy in the neonatal period and prolonged exposure of the bronchial membrane to highly irritating substances, the presence of reported cases among siblings and cousins and its association with conditions such as Ehlers-Danlos syndrome, Marfan syndrome, and cutis laxa in children suggest that MKS may have an autosomal recessive inheritance pattern.

Although tracheal widening on a chest X-ray is important for the radiological diagnosis of MKS, the most sensitive imaging modality currently accepted is thoracic computed tomography (CT). MKS should be considered if a chest X-ray shows a tracheal diameter ≥ 30 mm, a right bronchial diameter ≥ 24 mm, and a left bronchial diameter ≥ 23 mm.

Transverse tracheal diameter exceeding 21 mm and anteroposterior tracheal diameter exceeding 23 mm in female patients, whereas in male patients, transverse tracheal diameter of ≥ 25 mm and anteroposterior tracheal diameter of ≥ 27 mm are considered diagnostic findings in thoracic CT for MKS. Additionally, in male patients, right and left main bronchus diameters of 21.1 mm and 18.4 mm, respectively, and in female patients, right and left main bronchus diameters of 19.8 mm and 17.4 mm, respectively, are also diagnostic of MKS.

Furthermore, tracheal diverticula, bronchiectasis, tracheobronchomalacia, and emphysema on thoracic CT scans are considered supportive radiological findings for the diagnosis. MKS is primarily diagnosed through radiological and bronchoscopic methods. Treatment of the syndrome focuses on preventing and managing bronchopulmonary infections, when present, and on supportive therapies, such as respiratory physiotherapy (2-5).

FOOTNOTES

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