Pulmonary Arteriovenous Malformation: A Culprit of Middle Lobe Syndrome?

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Middle lobe syndrome (MLS) refers to lobar atelectasis and bronchiectasis and is either obstructive or non-obstructive type. A 63-year-old asthmatic female patient presented with recurrent pneumonia and unrelenting cough which proved to be due to pulmonary arteriovenous malformation that led to obstructive MLS. CT scan showed right middle lobe volume loss, bronchiectasis and dilated pulmonary vessels. The patient was operated for right middle lobectomy.

The pathological examination revealed pulmonary arteriovenous malformation with post obstructive changes. Pulmonary arteriovenous malformation should be part of the differential diagnosis of MLS and should prompt early referral for surgery. Middle lobe is anatomically susceptible to obstruction of the bronchus and to atelectasis due to its poor drainage and ventilation. Conservative treatment with antibiotics, bronchodilators, and chest physiotherapy are effective in 33.3 to 66.6% of patients. Lobectomy is required in a third of MLS patients who fail conservative management or have persistent symptoms that last more than 6 months or have malignant obstruction.

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