

## **Bilateral Choroidal Metastases as the Presenting Manifestation of Lung Adenocarcinoma in a Young, Non-smoking Female: A Case Report**

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**Abstract :** Background: Initially believed to be rare, metastases to the eye are the most common ocular malignancy. The choroid's high perfusion rate not only makes it the most susceptible ocular site for tumour seeding, but also promotes its growth. The cancers most frequently responsible for choroidal metastases originate from the breast and lung, although a significant proportion have unidentified primaries at the time of presentation. Case Presentation: This case report describes a 34 year old female presenting to the ophthalmology department with a one month history of painless distorted vision. On fundus examination, she was noted to have bilateral choroidal lesions and subsequently underwent a comprehensive diagnostic work-up. The patient was diagnosed with metastatic pulmonary adenocarcinoma, despite lacking conventional risk factors. As she was found to have a mutation in EGFR, the patient was commenced on tyrosine-kinase inhibition with afatinib. The choroidal lesions regressed with a significant improvement in visual acuity and a dramatic anatomical reduction of the choroidal masses. Conclusions: Our case demonstrates the importance of considering metastases as a differential diagnosis for choroidal lesions. Appropriate and thorough history-taking, examination and investigations may be required in order to deduce the underlying cause. Our case is unusual in view of the choroidal lesion being the primary manifestation of metastatic lung cancer in a young patient with no known risk factors. Early recognition of choroidal metastases is important as it is often the first sign of tumour dissemination and will prompt earlier treatment with systemic medications such as chemotherapy, immunotherapy, targeted therapy or hormonal therapy. Our case report also demonstrates the efficacy of afatinib for the treatment of choroidal metastases, with morphological and functional improvements observed with regard to the choroidal metastatic tumour.

**Keywords :** choroidal neoplasm, choroidal naevus, pulmonary adenocarcinoma, metastases, lung cancer

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