Research Article

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Opacity of Pure Ground Glass: Possible Overdiagnosis?

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INTRODUCTION

A 75-year-old woman who is healthy, active, and does not smoke was recommended to have a routine chest x-ray due to inadvertent weight reduction over time. Following a chest x-ray (Figure 1) that revealed diffuse consolidation in the right lower lobe, the patient was scheduled for a CT scan of the thorax (Figure 2) within the following month. A 15 × 13 mm ambiguous ground glass opacity lesion was visible on the CT scan of the right lower lobe. The patient was referred for a CT-guided lung biopsy due to the possibility of a malignant outcome (Figure 3). The patient experienced a right-sided pneumothorax during the biopsy, but it resolved with the use of a surgical tube.

Histopathological diagnosis

Lower lobe resection (right) showing a nonmucinous adenocarcinoma in situ.14 mm lesion, centrally situated. Marginaries for free resection. Pathological stage: pTis for AJCC1 and UICC2.

Treatment

The patient underwent a thoracascopic lobectomy of the lower lobe on the right side. After that, the patient had an annual CT thorax scan as a follow-up.

DISCUSSION

Lesions with ground glass opacity frequently indicate slowly developing ambiguous lesions with the potential to become malignant [1]. According to certain research, ground glass opacity lesions are linked to female sexual activity [2]. There is ongoing discussion on the histological classification of these lesions [3]. Here, we're referring to the most recent categorization that hasn't been included to the WHO classification [4].

A histological continuum from atypical adenomatous hyperplasiathroughadenocarcinomainsitu(bronchioloalveolar carcinoma) to adenocarcinoma with primarily lepidic growth has been documented for ground glass opacity lesions [5]. The pathologist frequently finds it challenging to distinguish between these diagnoses using a needle biopsy sample. There was still some doubt as to whether the tumor was invasive cancer even from the resection specimen from this patient. It is suggested to follow up on pure ground glass opacity lesions for a longer period of time before undergoing invasive diagnostic treatment (6). If a ground glass nodule persists longer than 5 mm, it does not need to be followed up on.annually for a minimum of three years [7]. Because of its limited utility and potential for deception, positron emission tomography scans of pure ground glass opacity are not advised [7]. A biopsy or surgical resection should be explored in cases where there is solid change or rapid expansion of pure ground glass opacity lesions, as these are indicative of malignancy [8].

CONCLUSION

It is currently unclear how dangerous pure ground glass opacity lesions can be. It is possible that some ground glass nodules are overdiagnosed because not all of them will progress to clinically relevant malignant illness [9].

1 American Joint Cancer Committee
2 International Cancer Control Union

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