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Pneumoconiosis mimicking lung metastases of medullary thyroid carcinoma

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A 63-year-old man diagnosed with pT3N1b medullary thyroid carcinoma (MTC) was referred for further management three months after total thyroidectomy with left lateral lymphadenectomy. On admission the levels of carcinoembryonic antigen (CEA) and calcitonin (CT) were slightly elevated (CT – 51.1 pg/ml; CEA – 5.13 ng/ml). The patient underwent radiotherapy three months after surgical treatment. A follow-up CT of the thorax performed after succeeding three months, revealed numerous pulmonary nodules (fig. 1) and the mediastinal lymphadenopathy (fig. 2) suspected of metastases. CT levels remained elevated (43 pg/ml) with decrease of CEA level equally (3.61 ng/ml) and the patient did not exhibit any respiratory symptoms. The histopathological examination of retrieved lymph nodes did not show any abnormalities. Since the possibility of metastases could not be ruled out, the patient underwent an anterior thoracotomy. The removed lung masses unveiled black-grey nodules which turned out to be pneumoconiosis. The patient history revealed exposure to dust and fumes. This is the first described case of pneumoconiosis mimicking MTC metastases. What draws attention is the short period of time from the radical surgery to the occurrence of initially absent multiple pulmonary lesions with a relatively insignificant growth of calcitonin. This pattern is characteristic for singular nodular MTC metastases rather than multiple micronodular metastases in solid organs [1]. It is worth to emphasize that in such cases we should take under consideration different respiratory system comorbidities, including occupational diseases.

Conflict of interest: none declared
References

Figure 1. CT images of the thorax showing a pulmonary nodule in the 5R segment

Figure 2. CT images of the thorax showing a right hilar lymphadenopathy