Miliary Tuberculosis Mimicking Papillary Thyroid Cancer Metastasis

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Introduction:

Papillary thyroid carcinoma (PTC) is the most frequently occurring subtype of thyroid differentiated cancers. PTC frequently metastasizes to the cervical lymph node region and metastasis rate of approximately 20-90% is available when diagnosed. Distant metastases are usually the lungs, bone and brain metastases. Furthermore rarely the adrenal gland, skeletal muscle, ovaries, submandibular gland, sphenoid sinuses, liver and pancreatic metastases can be occurred. PTC’s lung metastases can manifest as nodular, local or generalized lymphadenopathy, pleural effusion and miliary multiple metastases. Miliary metastases are extremely rare.

Case:

A 40-year-old man was referred to Department of Pulmonary Diseases for complaints of cough with expectoration, dispnea and chest pain. Chest x-ray (Figure 1) revealed miliary pulmonary lesions which was confirmed on computed tomography (CT) (Figure 2) analysis. Because of clinical suspicion of miliary tuberculosis, bronchoscopic biopsy was performed. The papillary thyroid cancer metastasis was diagnosed in histological examination. Since the histological diagnosis was PTC, we checked the thyroid gland. Ultrasound examination of thyroid gland showed 10x15 mm hypoechoic solid nodule with micro calcification. The diagnosis of PTC was verified with cytological examination via ultrasound guided thyroid fine needle aspiration. Because of these findings total thyroidectomy was performed. Microscopically, this nodule was diagnosed PTC (hurtle cell variant) with capsular and lenfovascular invasion. After treatment with iodine 131 was planned patient was discharged.

Conclusion:

Although PTC is known relatively lingering disease, the early metastases can be occurred before When diagnosis of PTC is established. Metastatic PTC may appear radiographically as solitary or multiple nodules and rarely diffuse micronodular and reticular. So because of these patterns while evaluating the miliary lesions of lung the metastases of PTC must be come to mind.

Figure 1. In the chest radiography, widespread nodular opacities are seen in all the zones.

Figure 2. In thoracic CT, multiple atypically located nodule formations are seen in bilateral lungs.