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Clinical vignette

Incidental detection of COVID-19 associated pneumonia by thyroid scintigraphy

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Abstract

This report presents a case of a 49-year-old woman with complaint of sore throat and front neck pain, who referred to a hospital for thyroid scan due to suppressed TSH level (0.005 mU/L). Diffuse and bilateral lungs uptake in the scan was noticed incidentally. The patient had positive history of covid-19 symptoms. Multifocal and bilateral ground-glass opacities (GGOs) in both lungs were compatible with typical features of lung involvement in COVID-19-associated pneumonia.

KEY words: COVID-19; pneumonia; thyroid scintigraphy

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A 49-year-old female was presented with complaints of sore throat and front neck pain for 1 month. She referred to the nuclear medicine department to perform a thyroid scan. The thyroid gland was tender on physical examination. Also, the laboratory assay showed suppressed TSH level (0.005 mU/L). 15 minutes after Intravenous injection of 185 MBq [^{99m}Tc] pertechnetate, an anterior planar image of the neck was obtained. The scan revealed diffusely decreased radiotracer uptake throughout the thyroid with poor delineation of the thyroid gland which was suggestive of subacute thyroiditis (Fig. 1). Moreover, significant, diffuse and bilateral [^{99m}Tc]

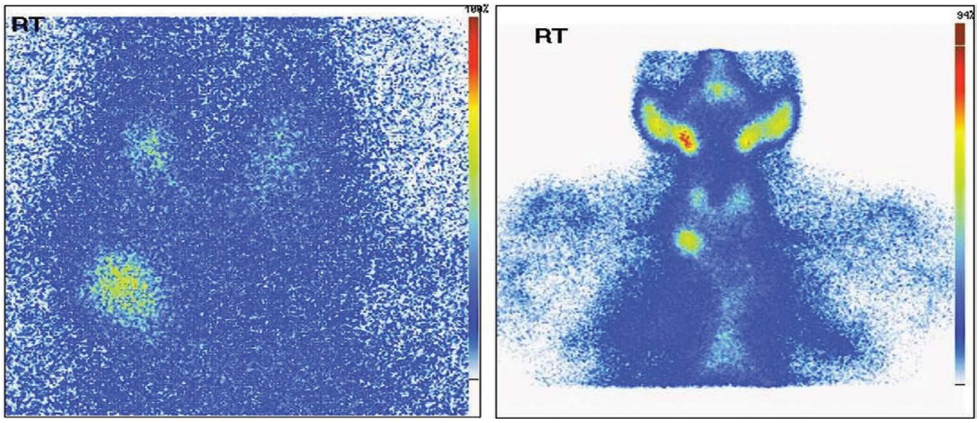

Figure 1. [^{99m}TC] pertechnetate thyroid scan. Anterior planar image of the neck revealed diffusely decreased radiotracer uptake throughout the thyroid with poor delineation of the thyroid gland and decreased thyroid to background ratio. Also, significant, diffuse and bilateral uptake in both lungs is noted

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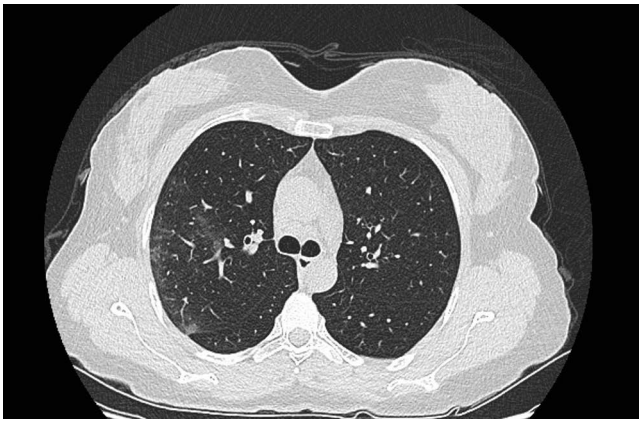

Figure 2. Transaxial chest HRCT scan showed bilateral and multifocal patchy ground-glass opacities (GGOs), (more in the right lung), predominantly located in the peripheral of the chest

pertechnetate in both lungs fields caught our attention. After that, the patient was asked about experiencing any infectious symptoms. She had fever, cough, dyspnoea and myalgia for the past 40 days, which were typical symptoms of COVID-19 pneumonia [1, 2]. The patient underwent a chest high-resolution CT scan (HRCT) that revealed multifocal and bilateral ground-glass opacities (GGOs), predominantly distributed in the peripheral. These findings were compatible with typical findings of COVID-19-associated pneumonia (Fig. 2) [3, 4].

COVID-19 disease causes severe acute respiratory syndrome. SARS-CoV-2 was first recognized at the end of 2019 and became a global concern very soon [5]. Nowadays, many people around the world have experienced a range of clinical manifestation, from no symptoms to critical illness. The purpose of this presentation is to spread awareness among nuclear medicine physicians to develop their knowledge about incidental detection of COVID-19 disease in patients who undergo routine SPECT/CT or PET/CT scans during this pandemic, especially in high COVID-19 prevalence areas [6–8].

Conflict of interest

The authors declare that they do not have any conflict of interest.

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