

Bbv-152

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Subacute thyroiditis: case report

A 34-year-old woman developed subacute thyroiditis (SAT) following administration of BBV-152 for COVID-19 immunisation.

The woman had a negative history of previously proven or suspicious COVID-19 infection. On 03 April 2021, she received her first injection of BBV-152 [COVAXIN; The Bharat Biotech] [*dosage not stated*]. About 12 hour post vaccination, she developed expected symptoms, mainly myalgia, fatigue, and mild fever which resolved gradually over the next 72 hours. During the day 5–7 post-vaccination, she experienced gradual onset of intermittent mild fever, radiating anterior neck pain and palpitation. Eleven days post-vaccination, she consulted an internal medicine specialist due to persistent symptoms. Physical examination revealed that the thyroid gland was tender to touch and was mildly enlarged, without any palpable thyroid nodule. She did not had any history of any type of high iodine exposure or prior thyroid disorder. Thereafter, she was referred and, on the same day, 99mTechnetium-pertechnetate thyroid scintigraphy revealed global, moderate to severely decreased radiotracer uptake of the thyroid gland and increased background activity compatible with the SAT. Subsequently, examinations showed decreased vascularity and heterogeneity of the thyroid gland. Simultaneously, the laboratory data portrayed thyrotoxicosis with elevated thyroxine (T4) at 20.9µg/dL, elevated triiodothyronine (T3) levels at 2.7 ng/mL and suppressed thyrotropin (TSH) level at 0.05 mIU/L, a white blood cell count of $8.3 \times 10^3/\text{mm}^3$, a neutrophil count of 72%, a lymphocyte count of 25%. Erythrocyte sedimentation rate was high and C-reactive protein levels were borderline upper limit of normal. Therefore, the diagnosis of SAT was confirmed. However, during the past 3 months, she had no history upper respiratory tract infection or otherwise viral infection symptoms except for the previously described post vaccination symptoms. During the past couple of months, she did not report any history of recent travel and had followed the social distancing rules vigorously and had no close or unprotected contact with any known or suspected SARSCOV2-positive case. Her concurrent chest CT scan revealed that her lungs were clear without any sign of any current or prior sequels of COVID-19 infection or other causes of pneumonia. Therefore, the development of SAT was attributed to BBV-152 [*duration of treatment to reaction onset not stated*].

Thereafter, the woman was treated with prednisolone and propranolol. Thereafter, a remarkable resolution of symptoms were observed, hence, propranolol was discontinued. After 7 weeks from initiation of symptoms or 1 week after discontinuation of prednisolone, a repeat thyroid function tests revealed that her TSH, T4 and T3 were within normal limits. Up to 4 weeks after completion of treatment, she was followed up during which; she did not experience any relapse in symptoms or further complications.