

AB020. Syndrome coronavirus type 2 (SARS-CoV-2) infection in patient with thymoma: presentation of two cases

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Abstract: Patients with thymoma are more susceptible to develop infections due to possible autoimmune impairment due to autoantibodies directed towards cytokines involved in immune response, and this could play a role also in syndrome coronavirus type 2 (SARS-CoV-2) infection. We report on two cases of thymoma incidentally diagnosed in patients affected by SARS-CoV-2 infection, in one case the patient had a severe SARS-CoV-2-related pneumonia, in the second case only a mild SARS-CoV-2 infection was detected. Case No.1 was a 57 years old man with a recent history of severe SARS-CoV-2 related pneumonia, inducing treatment with corticosteroids. Imaging studies revealed the presence of an anterior mediastinal mass. Case No.2 was a 44 years old woman, with a recent history of mild SARS-CoV-2 infection treated with a domicile therapy including corticosteroids and paracetamol. Imaging studies revealed a mediastinal para-cardiac mass. In both cases the tumors were completely removed. Case No.1: after mass removal and histological examination, we made a diagnosis of B3 thymoma with a component of B2, pT3, pN0. Case No.2: after removal of the mass, the diagnosis of thymoma B2 with a minor component B3, pT1a, pNx was made. SARS-CoV-2 infection has represented the opportunity to discover the disease, because the patients were otherwise

asymptomatic for the neoplasia. In both cases the patients were treated with corticosteroids. The treatment could lead to histological modifications including lymphocyte depletion, that could bring to overestimate the epithelial neoplastic component and to overdiagnoses B3 areas in an otherwise B2 thymoma. Recent studies have demonstrated that neoplastic thymic epithelial cells have significative increase of expression of cathepsin L (CTSL), one of the proteins known to be mediators and facilitators for the viral infection. Anyway, the possibility of a direct infection of the neoplastic cells by the virus has not been demonstrated and requires further studies.

Keywords: Syndrome coronavirus type 2 (SARS-CoV-2); thymoma; histotyping and cortisone

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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