

Review Form2

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|--------------------------|------------------------------------------------------------------------------------|
| Book Name:               | <a href="#">Disease and Health Research: New Insights</a>                          |
| Manuscript Number:       | Ms_BPR_2666                                                                        |
| Title of the Manuscript: | Description of a patient with Graves' disease post COVID-19 with negative serology |
| Type of the Article      | Book chapter                                                                       |

PART 1: Review Comments

| Compulsory REVISION comments                                                                                                                                                                                                         | Reviewer's comment | Author's Feedback(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimumof 3-4 sentences may be required for this part.                        |                    |                                                                                                                                                             |
| Is the title of the article suitable?<br>(If not please suggest an alternative title)                                                                                                                                                |                    |                                                                                                                                                             |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.                                                                          |                    |                                                                                                                                                             |
| Are subsections and structure of the manuscript appropriate?                                                                                                                                                                         |                    |                                                                                                                                                             |
| Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimumof 3-4 sentences may be required for this part. |                    |                                                                                                                                                             |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.                                                                                                  |                    |                                                                                                                                                             |

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| Minor REVISION comments                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| Is the language/English quality of the article suitable for scholarly communications? |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| Optional/General comments                                                             | <p>Below is my review of the case report titled "Description of a patient with Graves' disease post COVID-19 with negative serology."</p> <ol style="list-style-type: none"><li>1. The patient was diagnosed with septic shock due to community-acquired pneumonia and sigmoid diverticulitis. This clinical picture can explain the patient's condition, and the thyroid function may overlap with sick euthyroid syndrome in the differential diagnosis. Therefore, it would be more appropriate to conduct a more detailed differentiation between sick euthyroid syndrome and hyperthyroidism.</li><li>2. Another aspect of the case that suggests sick euthyroid syndrome is the fact that the patient's total T3 value was normal while the free T4 level was elevated. According to the literature, most patients with marked hyperthyroidism due to Graves' disease or nodular goiter exhibit a greater increase in serum T3 compared to serum T4. This is attributed to both the disproportionate increase in thyroidal T3 secretion and the enhanced extrathyroidal conversion of T4 to T3[1]. When radioactive iodine uptake is contraindicated, other measures to distinguish Graves' hyperthyroidism from destruction-induced hyperthyroidism include a serum T3/T4 ratio &gt;20 (standard units ng/μg) [2] and a serum free T3/free T4 ratio &gt;0.3 (SI units) [3]. However, neither the free nor total values of these ratios have been provided. Including them would be appropriate.</li><li>3. The diagnostic algorithm was followed appropriately.</li></ol> <p>In conclusion, while the literature shows that Graves' disease can be triggered by infections, its association with COVID-19 has not been definitively demonstrated, and only two cases have raised suspicion in this regard. Considering the patient's condition, a more thorough differentiation of sick euthyroid syndrome should have been performed. The diagnostic antibodies supporting Graves' disease were negative, and iodine uptake and scintigraphy tests were not conducted. Only increased vascularity was observed in the ultrasound.</p> <p>Bibliography<br/>P. Laurberget <i>et al.</i>, "Sources of circulating 3,5,3'-triiodothyronine in hyperthyroidism estimated after blocking of type 1 and type 2 iodothyronine deiodinases," <i>J ClinEndocrinolMetab</i>, vol. 92, no. 6, pp. 2149–2156, 2007, doi: 10.1210/JC.2007-0178.<br/>N. Amino <i>et al.</i>, "Serum ratio of triiodothyronine to thyroxine, and thyroxine-binding globulin and calcitonin concentrations in Graves' disease and destruction-induced thyrotoxicosis," <i>J ClinEndocrinolMetab</i>, vol. 53, no. 1, pp. 113–116, 1981, doi: 10.1210/JCEM-53-1-113.<br/>[3] Y. Izumi <i>et al.</i>, "Simple and practical parameters for differentiation between destruction-induced thyrotoxicosis and Graves' thyrotoxicosis," <i>ClinEndocrinol (Oxf)</i>, vol. 57, no. 1, pp. 51–58, 2002, doi: 10.1046/J.1365-2265.2002.01558.X.</p> |  |

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PART 2:

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|----------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              | Reviewer's comment                                                           | Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> |                                                                                                                                                                                      |

Reviewer Details:

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