

Quality Assessment and Summary of Key Characteristics of Included Studies

Table S1. Case Reports/Case Series Studies assessed using the Murad Tool Scoring Criteria [1]. The study is classified as "good quality" – score 4, "fair quality" – score 3 and "poor quality" score between 1-2

| Author | Country | Number of eligible newborns | Quality Assessment Score |
|-------------------------------|-------------|-----------------------------|--------------------------|
| Abadía-Cuchí <i>et al</i> [2] | Spain | 1 | 2 |
| Alzamora MC <i>et al</i> [3] | Peru | 1 | 4 |
| Babal <i>et al</i> [4] | Slovakia | 1 | 2 |
| Boncompagni <i>et al</i> [5] | Italy | 1 | 3 |
| Bouachba[6] | France | 2 | 4 |
| Buonsenso D <i>et al</i> [7] | Italy | 1 | 3 |
| Bullok <i>et al</i> [8] | USA | 1 | 4 |
| Carvalho <i>et al</i> [9] | Brazil | 2 | 4 |
| Choobdar <i>et al</i> [10] | Iran | 1 | 3 |
| Correia <i>et al</i> [11] | Portugal | 1 | 2 |
| Daza[12] | Columbia | 1 | 4 |
| Disse <i>et al</i> [13] | Germany | 2 | 3 |
| Dong <i>et al</i> [14] | China | 1 | 4 |
| Enache <i>et al</i> [15] | Romania | 1 | 3 |
| Eich[16] | Germany | 1 | 4 |
| Ergon <i>et al</i> [17] | Turkey | 1 | 3 |
| Facchetti <i>et al</i> [18] | Italy | 1 | 2 |
| Farhadi <i>et al</i> [19] | Iran | 1 | 4 |
| Favre <i>et al</i> [20] | Switzerland | 1 | 3 |
| Fitzgerald <i>et al</i> [21] | Ireland | 5 | 3 |
| Fusco <i>et al</i> [22] | Brazil | 3 | 4 |
| Gant <i>et al</i> [23] | USA | 1 | 4 |
| Garcia-Ruiz <i>et al</i> [24] | Spain | 1 | 2 |
| Guan[25] | USA | 1 | 4 |
| Karade <i>et al</i> [26] | India | 1 | 3 |
| Kirtsman <i>et al</i> [27] | Canada | 1 | 3 |
| Kohorn <i>et al</i> [28] | USA | 1 | 3 |
| Lesieur <i>et al</i> [29] | France | 1 | 3 |

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| Lorenz <i>et al</i> [30] | Germany | 1 | 3 |
| Marinho <i>et al</i> [31] | Brazil | 1 | 4 |
| Marton <i>et al</i> [32] | UK | 1 | 2 |
| Marzollo <i>et al</i> [33] | Italy | 1 | 3 |
| Morales <i>et al</i> [34] | Mexico | 1 | 3 |
| Min Yi <i>et al</i> [35] | Singapore | 1 | 2 |
| NG David <i>et al</i> [36] | Malaysia | 1 | 3 |
| Parsa <i>et al</i> [37] | Iran | 1 | 4 |
| Popescu <i>et al</i> [38] | Romania | 1 | 2 |
| Pulinx <i>et al</i> [39] | Belgium | 2 | 2 |
| Reagan-Steiner <i>et al</i> [40] | USA | 1 | 3 |
| Rebello <i>et al</i> [41] | Brazil | 1 | 3 |
| Richtmann <i>et al</i> [42] | Brazil | 1 | 4 |
| Rodrigues <i>et al</i> [43] | Portugal | 1 | 2 |
| Sagara <i>et al</i> [44] | Japan | 1 | 4 |
| Schwartz[45] | Georgia | 2 | 2 |
| Sessa <i>et al</i> [46] | Italy | 2 | 3 |
| Shaiba <i>et al</i> [47] | Saudi-Arabia | 1 | 2 |
| Shen <i>et al</i> [48] | USA | 1 | 2 |
| Shook <i>et al</i> [49] | USA | 2 | 4 |
| Sukhikh <i>et al</i> [50] | Russia | 1 | 3 |
| Vivanti <i>et al</i> [51] | France | 5 | 2 |
| Vivanti <i>et al</i> [52] | France | 1 | 4 |
| Zaigham <i>et al</i> [53] | Sweden | 9 | 3 |
| Zamaniyan <i>et al</i> [54] | Iran | 1 | 4 |
| Zhang <i>et al</i> [55] | USA | 1 | 2 |
| Zinserling <i>et al</i> [56] | Russia | 1 | 4 |

Table S2. Scoring Criteria for the Murad Tool

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|----------------------|---|
| Selection | <ul style="list-style-type: none"> • Were the cases presented from a particular study period? |
| Ascertainment | <ul style="list-style-type: none"> • Were the cases positive for COVID-19 according to the accepted criteria? • Was the neonates' clinical status reported? |
| Causality | <ul style="list-style-type: none"> • Have alternative causes for the presence of symptoms besides COVID-19 infection been ruled out? • Was the duration of the follow-up sufficient for outcomes to occur, such as neonatal discharge or death? |

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| Reporting | <ul style="list-style-type: none"> Was the case described sufficiently for other researchers to replicate the study or for practitioners to draw inferences about their own practice? |
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Table S3. Studies were assessed based on Newcastle-Ottawa Scale. A study with a score of 6 or more is classified as high quality, 4-5 as medium quality, and less than 4 as low quality, using the Newcastle-Ottawa Scale[57].

| <i>Study</i> | Country | Cohort size | Number of cases with confirmed vertical transmission | Quality Assessment Score |
|-----------------------------------|----------------|--------------------|---|---------------------------------|
| <i>Argueta et al</i> [58] | USA | 54 | 1 | 5 |
| <i>Fenizia et al</i> [59] | Italy | 31 | 1 | 5 |
| <i>Garrido-Pontnou et al</i> [60] | Spain | 198 | 4 | 2 |

Table S4. Scoring Criteria for the Newcastle-Ottawa Scale

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|----------------------|--|
| Selection | <ul style="list-style-type: none"> Were the cases presented representative of the average in the target population? Were there cases with negative COVID-19 test? Were the cases taken from medical records? Was the subject of vertical transmissions followed in the study from beginning? |
| Comparability | <ul style="list-style-type: none"> Were the cases of interest compared to other groups based on the study design or analysis? |
| Outcome | <ul style="list-style-type: none"> Was there sufficient clinical data on the neonates? Were the confirmed cases followed up long enough for outcome to occur? Was there a complete follow-up of the confirmed cases? |

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